Annual Report of the Forest Deptt.
Madras Presidency for the official
year 1872-73

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Forest- ~~Annual~~ Report

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ANNUAL REPORT

OF THE

FOREST DEPARTMENT, MADRAS PRESIDENCY,

FOR 1872-73.

THE Board resolve to submit to Government the annual Report of the Forest Department for 1872-73.

2. The subject will, as usual, be treated under the following sections :—

SECTION I.—Inspection tours of the Inspector of Forests.

SECTION II.—Reserves.

A.—Reserved forests.

B.—Fuel reserves.

C.—Plantations.

SECTION III.—Forests worked under the license and voucher system.

SECTION IV.—Yield of forests.

SECTION V.—Financial results.

SECTION VI.—General remarks.

3. SECTION I.—The conservancy of forests was placed under the Collectors on the 1st October 1872. Since then the Inspector of Forests has visited all the districts in which there are forests, excepting Ganjam and Vizagapatam. His tours, however, were rapid, and he had no time to inspect the operations in the forests. He conferred with the Collectors of the several districts, explained to them the system of operations previously in force, and directed their attention to improvements. He dwells at some length on the expediency of requiring a knowledge of surveying from Overseers, on the imperfect conservancy of North Arcot, and on the expediency of keeping up a specially trained forest establishment. The Board do not quite understand how officers who have already obtained the appointment of Overseers, and have important duties to perform, can be made to pass in

surveying, and the Inspector will be requested to explain what he means. The case of North Arcot is under consideration, and is the subject of correspondence with the Collector. The Board have already represented to Government the desirability of giving the Inspector a certain amount of control over the forest establishments. No information is before the Board as to any tours which may have taken place previous to the 1st October 1872.

4. SECTION II.—RESERVES.—(A.) *Reserved Forests.*—In some localities forests are reserved by tracts, and in others only certain description of trees are reserved for felling by departmental agency. The Board have no information regarding the area of all the reserved forests, nor regarding the estimated number or value of the timber or other valuable trees contained in them. It is no doubt extremely difficult to make an accurate estimate in forests where trees are generally unequally distributed, but the Board hope that Collectors will endeavour to collect as much of this important information as may be possible. The following appear to be the forests altogether reserved for departmental felling :—

I. *Ganjam.*—Portions of the Gumsur and Suradah forests, area not known.

II. *Kurnool.*—A tract of the Nallamallays, containing about 300 square miles.

III. *Madura.*—The forests at Periacolum and Pulney.

IV. *Tinnevelly.*—Portions of the forests near the sources of the important rivers which irrigate the district.

V. *Coimbatore.*—The Anamallay, Government and leased forests, and the Sholacurray forests in the Bolumputty Range.

VI. *Nilgiris.*—The Mudumallay leased forests and a portion of the Wynaad worked in connection with it, containing about 300 square miles.

VII. *Malabar.*—The Chenat Nair forests, containing about eighteen square miles.

The Nelambore forest.

The Government Teak belt in Wynaad.

VIII. *South Canara.*—The Ghaut forests.

5. In Tinnevelly the forests appear not to have been reserved previous to the transfer of the department to the Collectors, but to have been thrown open on the license system to charcoal burners and firewood and timber-cutters, who did enormous damage. Since the transfer, Mr. Puckle has reserved all those forests in which the important rivers of the district take their rise. The reservation is made not so much with the object of improving forest revenue as of preserving the water-supply of the district upon which depends a revenue of ten lakhs of Rupees, and a profit thrice as great to the ryots whose lands are irrigated thereby. In reserving these forests, Mr. Puckle has duly considered the requirements of the adjacent villagers and marked off spurs and slopes sufficient for their wants in the way of pasture and firewood, and he has prohibited entrance only into the black forest above. As justly remarked by Mr. Puckle, the forest net revenue, which is but Rupees 3,400, is but a trifle when compared with the water-supply

of a single village, and there can be no doubt but what forests play an important part in regulating the distribution of water; but Mr. Puckle goes a great deal too far when he says the supply depends on the existence of the forest.

6. The accompanying Statements B and C show the timber, etc., felled and sold by departmental agency in the reserved forests during the year under report, and subjoined is an abstract thereof:—

	Timber, etc., felled.		Timber, etc., sold.	
	Quantity.	Value.	Quantity.	Amount actually realized.
		Rs.		Rs.
Teak in cubic feet	19,466	11,842	42,421	78,788
Ebony or Blackwood, cubic feet ...	3,745	2,819	598	607
Rosewood, cubic feet	6,462	3,776	Not given.	386
Sandalwood, in maunds	15,329	29,491	17,228	57,627
Red Sander roots or posts ...	c. ft. 4,082 maunds 82,447	13,252	c. ft. 593 24,071	23,947
Other junglewood used as timber in cubic feet	34,634	19,662	38,871	26,242
Bamboos ... ... No.	16,000	480	54,366	3,188
Railway fuel	tons 120	360	586 Bdy. loads 126	3,765
Saplings	logs 531	398	11,229	7,379
Forest-produce	maunds 365	794	160	690
Total ..	.....	82,874	.....	2,02,619

7. The valuation* given above for timber felled is not based on the price at which it will be sold, but is calculated at the actual cost of felling and conveyance *plus* the supposed seigniorage on the timber standing in the forest.

G. O., dated 22nd June 1872, No. 962.

Forests.	Value of Timber felled.	Price of Timber sold.
	Rs.	Rs.
Salem	14,000	11,000
Cuddapah	12,000	22,000
Madura	7,000	.....
Anamallay	6,600	.....
Bhowany	10,000	23,000
Collegal	7,500	17,000
Seegur and Sattiamangalum... ...	5,000	15,000
South Canara ...	11,000	.....
Mudumallay... ...	.....	52,000
Nellambore	.....	17,000
Wynaad	.....	21,000
Total...	73,100	1,78,000

8. The forests in which departmental operations were carried on on a large scale during the year are shown in the margin.

9. The Collector of Salem is endeavouring to extend departmental felling. The Collector of South Canara is arranging to work by contracts instead of by paid labour, as he considers that to be a cheaper mode of working. The results will be reported next year.

10. *B. Fuel Reserves.*—Plantations for fuel do not fall under this head, but only such portions of natural forest as are fenced in and reserved for railway or local requirements in the way of fuel.

11. The following table shows the number and area of the fuel reserves in each forest:—

	No. of the Reserves.	Estimated Area.
Cuddapah	3	4,133 acres.
North Arcot	2	6,400 ,,
Salem	6	not known.
South Arcot...	10	26,800
Madura	2	not known.
Trichinopoly	1	do.
Malabar—Chenat Nair	3	4,900
Coimbatore—Mettapolliem	1	not known.
Total...	28	

12. *Cuddapah.*—The Collector thinks that, considering the present requirements of the railway, the existing reserves are not large enough. He has, therefore, marked off two more tracts of about 6,600 acres, but he has not yet enclosed them, pending the settlement of certain disputes regarding the boundaries.

13. *North Arcot.*—The abandonment of one of the two reserves covering an area of about 6 square miles has been ordered* by Government, because its enclosure was considered to interfere with the rights of the people. Endeavours are now being made to select† a new locality, but the Collector doubts whether he will be able to find one free from objections.

* G. O., dated 11th June 1873, No. 591.

† Board's Proceedings, dated 26th September 1873, Forest No. 157.

14. *South Arcot.*—Out of the ten reserves, four covering an area of 10,500 acres are intended for local requirements, and the other six for railway purposes. The Collector has been called upon to report whether the reserves required for local requirements cannot be transferred to Jungle Conservancy.

15 The reserves in the other districts call for no remark.

16. The quantity and value of firewood cut and sold from these reserves during 1872-73 cannot be exactly ascertained, but the amount realized from the entire quantity of firewood sold, which, for the most part, must be from these reserves, is shown below;—

	Rs.		Rs.
Gumsur and Suradah ...	84	Seegur and Sattiamangalum	1,828
Kurnool	56	Bhowany	4,381
Cuddapah	38,525	Collegal...	652
North Arcot	5,797	Mettapolliem	552
South Arcot	393	Mudumallay	100
Madura	6,121	Salem	35,364
Trichinopoly	573	Nellambore	251
Bolumputty...	2,186	South Canara	13,405
Anamallay	741		1,11,009

	Rs.
As per Statement C.	3,764
Do. E.	79,510
Permit fees in Statement A	27,735
	1,11,009

17. The above sum includes Rupees 27,735 entered in the accounts as "permit fees," which are said to be chiefly collected on firewood removed on contract. Collectors will be requested to show, in future, the several items on which the permit fees are collected.

18. Full information is not available regarding the cost of maintaining the fuel reserves, and the Collectors will be requested to give it in their next administration report in the form given below :—

Name of the Reserve.	Year in which the Reserve was formed.	Area.	Charges		Receipts		Remarks.
			During the year.	Up to the year.	During the year.	Up to the year.	

The past accounts probably do not show the receipts and charges of each reserve separately, but the Board hope that the Collectors will be able to estimate the figures with approximate correctness.

19. *C.—Plantations.*

There are three descriptions of plantations, *i.e.* :—

1. Fuel plantation.
2. Timber do.
3. Experimental plantations.

The following is a list of the existing plantations :—

Name of the Forest.	Fuel Plantations.				Experimental and Timber Plantations.			
	Number of Plantations.	Description of Trees.	Number of Trees.	Area in Acres.	Number of Plantations.	Description of Trees.	Number of Trees.	Area in Acres.
Gumsur and Suradah	...	.....	.....	...	1	Teak and other Timber trees	250	Not known.
Golcondah	...	.....	.....	...	...	.....	...	...
Cuddapah	4	Albizzia Lebbeck, Cassia florida, etc.	154,500	1,678	1	Red Sanders	16,000	50
Bellary	1	Melia Azadirachta and other Acacias	45,020	404	...	.....	...	...
Kurnool	...	.....	.....	...	2	Mango and Red Sanders	952	15
						Teak	132	
North Arcot	5	Chiefly Casuarina	456,000	980	1	Experimental with 90 different trees.	11,000	25
South Arcot	...	.....	.....	...	3	Do. Casuarina...	...	20
Trichinopoly	5	Babul and Casuarina ...	180,000	210	...	.....	...	...
Tanjore	1	Do.	1,000	70	...	.....	...	...
Madura	1	Babul and Eucalyptus ...	7,000	...	2	Teak	5,367	...
Tinnevelly	...	....	.....	...	...	.....	...	...
Anamallay	...	.....	.....	...	1	Experimental Teak	...	9
Bhowany...	...	.....	.. ...	...	...	.....	...	...
Collegal	...	.....	.....	...	1	Sandalwood	23,000	77
Seegur and Sattiamangalum...	...	.....	.....	...	2	Do.	49,400	78
Mettapolliem	...	.....	.....	...	...	.....	...	...
Bolumputty	...	.....	.....	...	...	.....	...	...
Mudumallay	...	.....	.....	...	2	Teak	60,000	...
Salem	1	Babul	.....	50	2	Sandalwood experimental...	...	...
South Canara...	...	.....	.....	...	1	Teak	90,000	...
Wynaad	...	.....	.....	...	...	.....	...	...
Nellambore	...	.....	.....	...	...	Teak	...	...
Chenat Nair	...	.....	.....	...	...	.....	...	...

20. The Collector of Kurnool remarks that the plantations in his district are a failure, and are not worth the cost. The Inspector of Forests will be requested to report on this point.

21. The Board regret that full information is not available in regard to the cost of all these plantations, and the Collectors will be requested to submit, with their next administration report, a statement prepared in the annexed form, the figures for the past year being estimated on the best possible data:—

Name of the Plantation.	Year in which the Plantation was formed.	Area.	Description of the Trees.	Number of the Trees.	Cost		Receipts	
					During the year.	Up to the year.	During the year.	Up to the year.
					Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.

22. Section III.—*Forests worked under the License and Voucher System.*—Statement E shows the collections in each forest under this head, and the following is an abstract of it:—

Description of Timber, etc., removed under the License System.	Quantity.	Amount realized.
		Rs.
Teak, in cubic feet	56,209	5,183
Ebony or Blackwood, do.	261	85
Rosewood, do	240	60
Other Junglewood used as timber ...	472,875	58,541
Firewood, in tons	35,990 / C. loads 4,673	79,510
Charcoal in cart-loads, ...	27,664 / Tons 935	5,091
Bamboos, do.	45,080 / No. 205,100	27,848
Palmyrah trees...	74	147
Forest-produce	Maunds 59,383	2,535
Total...	.....	1,79,000

23. The forests in which the largest sums were collected under this head are shown in the margin.

	Rs.
1. Cuddapah	50,826
2. Salem	34,604
3. Kurnool	29,490
4. North Arcot	13,996
5. South Canara	11,521
6. Madura	11,412
Total..	1,51,819

24. Section IV.—*Yield of Forests.*—The subjoined statement shows the total yield of each forest, that is, the quantity of timber, etc., sold or removed free of payment.

Ranges.	Timber.					Firewood for Railway and other purposes.		Bamboos.		Palmyras	Charcoal.	Forest-produce.
	Departmentally.		On License.		Free.	On License and Departmentally.	Free.	On License.	Free.			
	C. FT.	MAUNDS.	C. FT.	MAUNDS.	C. FT.	TONS.	TONS.	CART-LOADS.	CART-LOADS.	NO.	TONS.	MAUNDS.
Gumsur and Suradah...	1,952	...	45,070	...	...	236	...	...	...	...	...	...
Golcondah	...	...	b. l. 3	...	...	...	..	119	...	...	...	...
Cuddapah	3,305	82,447	102,380	...	6,680	17,199	625	1,810	111	38	7	5,550
Bellary	...	...	...	...	...	...	...	...	...	...	...	...
Kurnool	...	..	217,720	...	21,500	c. l. 273	...	14,715	283	...	c. l. 25,867	...
North Arcot	1,233	40	34,780	...	...	c. l. 4,198	...	9,748	...	...	c. l. 1,065	c. l. 23
South Arcot	811	...	9,288	...	7,010	164	191	1,306	133	...	14	34,347
Trichinopoly	...	...	...	...	...	...	...	..	...	...	...	...
Madura	7,715	...	44,361	...	...	3,235	...	2,128	...	...	c. l. 732	...
Tinnevelly	593	...	6,544	...	..	...	...	...	...	...	...	...
Anamallay	10,481	...	322	...	4,368	331	148	2,987	347	...	15	c. l. 1
Bhowany	...	5,933	8,964	...	...	20	...	...	...	...	...	...
Collegal	1,967	4,039	2,240	...	...	...	...	...	...	...	...	...
Seegur and Sattiamungalum	998	2,902	1,903	...	...	c. l. 202	...	...	...	...	...	c. l. 10
Mettapolliem	...	...	408	...	...	100	...	...	...	...	...	...
Bolumputty	...	...	1,998	...	304	969	6	1,189	28	...	21	b. l. 50 113
Mudumallay	...	...	..	...	...	...	...	...	...	...	...	...
Salem	7,825	2,415	50,896	...	53,584	12,122	...	11,078	1,400	...	868	19,738
South Canara	20,935	...	2,712	...	...	1,734	...	221,100	...	36	10	...
Wynaad	6,436	...	...	...	...	...	...	...	...	...	...	...
Nellambore...	...	...	...	...	...	...	...	...	...	...	...	...
Chenat Nair	4,337	...	...	...	...	...	...	...	...	...	...	...
Total...	68,588	97,776	529,586 b. l. 3	...	93,446	36,110 c. l. 4,673	970	45,080 No. 221,100	2,302	74	935 c. l. 27,664	59,748 c. l. 84

N.B.—The quantity entered under fir ewood is exclusive of that sold under the contract system, the value of which is about Rupees 28,000.

25. The quantity of timber and fuel shown above as having been removed free of payment is not quite correct. Some Collectors have not given any information on the subject, and all Collectors will be requested to see that this information is furnished in their next report.

26. SECTION V.—*Financial Results.*—The accompanying Statement A shows the receipts and charges during the year. The following is an abstract of it. It must here be observed that the classification of receipts and charges does not correspond with that given in the statement forwarded to the Accountant-General by the Board prepared from the monthly statements, though the total amount is exactly the same. The Collectors have been called upon to explain the differences:—

Item.	Receipts.	Amount.	Item.	Charges.	Amount.
		Rs.			Rs.
I.	Sale of timber, etc., removed by Government agency	2,02,619	I.	Expenses for felling timber, etc....	97,115
II.	Sale of timber removed on license	1,79,002	II.	Purchase of tools, etc. ...	2,803
III.	Duty on foreign timber*	150	III.	Feed and keep of cattle, etc.	19,089
IV.	Permit fees, etc.	27,735	IV.	Rent of leased forests ...	3,726
V.	Grazing dues...	.....	V.	Charges connected with the collection of forest produce	2,395
VI.	Sale of fruits, Babul pod, etc.	3,502	VI.	Plantations	1,57,248
VII.	Sale of confiscated timber	3,155	VI(A).	Reserved forests	3,722
VIII.	Fines and forfeitures ...	6	VII.	Forest work, viz., cutting of creepers, etc.	2,226
IX.	Miscellaneous receipts...	2,598	VIII.	Forest survey	106
			IX.	Experiments to test the value of timber	52
			X.	Communications, etc. ...	11,276
				Amount refunded into the Treasury	62
				Miscellaneous charges ...	3,915
					3,03,735
				2. Establishment and Office Contingencies	1,74,412
	Total...	4,18,767		Total...	4,78,147

27. The charges above shown include under Plantations Rupees 1,00,000 paid for the purchase of two tracts of land in Malabar; one for extending the Nellambore Teak plantation, and the other for a fuel reserve. Excluding this extraordinary charge, the usual charges are less than the receipts by Rupees 40,620. This result is satisfactory on the whole. The receipts obtained by departmental operations, however, fall short of the working charges. The former amount to Rupees 2,02,000, while the latter, including the share of the supervision charges, but excluding the extraordinary charge incurred on account of the purchase of

* The Board are making inquiries about this item.

	Rs.
Working charges	2,03,735
Share of establishment, etc., charges	84,000
	2,87,735

the forest lands at Malabar, amount to Rupees 2,87,735.* But it must be remembered that most of the plantations for which a large expenditure is incurred have not yet commenced to pay, and that the working charges are partly incurred for the benefit of the other items of receipts. For instance, the collections on account of firewood which appear under "License System" are from reserves, the cost of maintaining which appears under "Working Charges." With the materials before the Board, it is impossible to calculate the profits derived by working departmentally and under the license system respectively. The Collectors will be requested to estimate the profits and allude to it specially in their next administration report. The total income and cost in each forest is shown below.

G.—*Statement showing the financial Transactions of the Forest Department for the official year* 1872-73.

Ranges.	Expenditure.	Receipts.	Difference between Columns 2 and 3.	Value of Timber in Depôt.	Increase of Stock during the year.	Decrease of Stock during the year.	True results of the year calculated on Columns 4, 6, and 7.
1	2	3	4	5	6	7	8
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Central Office ...	29,359	.....	—29,359	.....	.....	.....	— 29,359
Gumsur and Suradah	3,135	3,677	+ 542	811	.....	20	+ 522
Golcondah	776	50	— 726	... ..	.....	.....	— 726
Cuddapah	25,851	73,261	+47,410	4,265	.....	4,645	+ 42,765
Bellary	1,523	.....	— 1,523	... ..	.....	.....	— 1,523
Kurnool	8,405	31,011	+22,606	486	.....	497	+ 22,109
North Arcot ...	17,548	19,564	+ 2,016	1,385	.....	3,003	— 987
South Arcot ...	9,473	4,099	— 5,374	1,228	.....	136	— 5,510
Trichinopoly ...	16,284	673	—15,611	.....	. ...	.....	— 15,611
Madura	21,483	16,004	— 5,479	15,859	5,126	.....	— 353
Tinnevelly	13,533	16,819	+ 3,286	12,676	.....	3,279	+ 7
Tanjore	1,007	.....	— 1,007	.. ...	.....	.....	— 1,007
Anamallay	42,648	11,649	—30,999	1,62,261	24,689	.....	— 6,310
Bhowany	20,424	26,686	+ 6,262	6,405	.....	3,827	+ 2,435
Collegal	13,120	18,361	+ 5,241	3,081	.....	4,870	+ 371
Seegur and Sattiamangalum ...	9,694	17,253	+ 7,559	4,018	.....	4,469	+ 3,090
Mettapolliem ...	3,863	807	— 3,056	300	300	.....	— 2,756
Bolumputty ...	1,417	3,559	+ 2,142	379	286	.....	+ 2,428
Mudumallay ...	46,039	46,043	+ 4	1,05,694	.....	29,629	— 29,625
Salem	23,398	64,234	+40,836	7,277	4,470	.....	+ 45,306
South Canara ...	20,487	23,596	+ 3,109	32,131	6,425	.....	+ 9,534
Wynaad	14,798	23,469	+ 8,671	19,514	.....	9,510	— 839
Nellambore... ...	1,07,322	17,111	—90,211	15,027	... ..	15,239	— 1,05,450
Chenat Nair ...	26,560	841	—25,719	5,571	538	.....	— 25,181
Total...	4,78,147	4,18,767	—59,380	3,98,368	41,834	79,124	— 96,670

28. The stock in hand at the commencement and close of the year is shown in Statement D. Its abstract is given below.

H.

Ranges.	At the commencement of the year.	At the close of the year 1872-73.	Difference In favour of the year.	Difference Against the year.
	Rs.	Rs.	Rs.	Rs.
Gumsur and Suradah	831	811	...	20
Golcondah	...	...	...	...
Cuddapah	8,910	4,265	...	4,645
Bellary	...	...	...	...
Kurnool	983	486	...	497
North Arcot	4,388	1,385	...	3,003
South Arcot	1,364	1,228	...	136
Madura	10,733	15,859	5,126	...
Trichinopoly	...	...	...	...
Tinnevelly	15,955	12,676	...	3,279
Anamallay	1,37,572	1,62,261	24,689	...
Bhowany	10,232	6,405	...	3,827
Collegal	7,951	3,081	...	4,870
Seegur and Sattiamungalum	8,487	4,018	...	4,469
Mettapolliem	...	300	300	...
Bolumputty	93	379	286	...
Mudumallay	1,35,323	1,05,694	...	29,629
Salem	2,807	7,277	4,470	...
South Canara	25,706	32,131	6,425	...
Wynaad	29,024	19,514	...	9,510
Nellambore	30,266	15,027	...	15,239
Chenat Nair	5,033	5,571	53	...
Total Assets...	4,35,658	3,98,368	41,834	79,124
Add total valuation of timber felled as per Statement B	82,875			
Total...	5,18,533			
Deduct total valuation of timber sold during the year	1,73,897			
	3,44,636			
Add increase on the valuation of the last year's stock	53,732			
Balance of stock at the close of the year ...	3,98,368			

29. From the above it will be seen that the value of the stock on hand at the close of the year is less than that at the commencement by Rs. 37,000.

30. *General Remarks.*—The reports received from the Collectors, the Inspector of Forests, and the Range Officers, contain a great deal of matter quite out of place in an administration report, which should be simply confined to a brief review of the transactions of the year. Collectors will be requested to submit, in future, all questions and suggestions requiring orders separately. If orders are required on any subjects mooted in the reports now under consideration, they should be re-submitted.

31. During the year, the system of allowing free passes to ryots for wood came under the special consideration of the Board, Major Beddome having remarked that the present system of permitting Village Munsifs to issue free passes to ryots without limit was likely to cause the entire destruction of forests in railway districts and affect the revenue considerably. From the reports received from the Collectors subsequent to the close of the official year, the Board find that Major Beddome's statement is exaggerated, and that the restrictions placed on the free cutting of wood by villagers are quite sufficient. The only districts in which the reports in any degree endorse Major Beddome's statement are North Arcot, South Arcot, and the Nilgiris. In North Arcot, the Collector must re-consider the matter, and the Board are in correspondence with him. In South Arcot, the abuses are simply the results of maladministration, and will disappear if simple precautions and checks are enforced. In the Nilgiris, it is stated that more wood than was entered in the free passes has frequently been cut. Steps are being taken to check the evil.

32. The Board will now notice the forests of each district separately, with reference to the remarks made by the Collectors and their Range Officers.

33. *Ganjam.*—The Collector had no time to inspect any of the forests during the six months they were under his management. The Forester in charge observes that certain Zemindars are attracting purchasers by charging a smaller seigniorage than the Government, and as wood-cutters have to pass to their forests through those of the Government, it is impossible to check surreptitious felling without some increase in the number of watchmen. The marks which he makes regarding cattle-disease and the way in which it is fostered and propagated demand attention. The health of the establishment has been very indifferent.

34. *Vizagapatam.*—The forests in this district are conserved by the Principal Assistant Collector. No timber is felled by departmental agency in consequence of the difficulty of bringing it from the ghauts to the plains. The collections which are derived entirely from seigniorage amount only to Rupees 50. They are said to have decreased in consequence of "want of cattle and want of money on the part of the ryots." The Board hope a more careful and detailed report will be submitted for 1873-74.

35. *Cuddapah.*—The Collector thinks plantations very unprofitable compared with reserves, and strongly condemns the existing system of raising plantations by sowing seeds in pits and channels. The soil is stated to be poor, and the land quite bare to the sun; there being no scrub-jungle whatever. The Collector thinks the land should be ploughed and sown broadcast with the seeds of Babul and hardy indigenous trees, and that the plants should be thinned as they grow. The Inspector of Forests is of the same opinion, and this course should be adopted in future. The denudation by the railway is enormous, and throws losses by free felling altogether into the shade. The fires in the jungles are most destructive, and appear to be caused intentionally by the cow-herds, because when the old grass is burnt the young grass shoots up vigorously, and good pasturage is obtained. As a remedy, the Collector suggests that the owners of cattle grazing in the forests,

where the fires arise, should be fined indiscriminately, but the Board do not see how the suggestion can be carried out. It should be considered whether the best forests can be strictly reserved and cattle excluded from them.

The Collector suggests that to protect growing Red Sanders portions of the forest should be enclosed, and the Inspector urges that the western side of the chain of mountains running from Tripetty to Cuddapah should be taken charge of, as well as the eastern. The Collector should consider the Inspector's suggestions, and state what the probable cost of fencing will be, and whether the reservation can be effected without reducing the annual receipts. Portions of forests are claimed by Shrotriemdars as being within the boundaries of their villages, and the Collector thinks that all the claims are groundless. He gives his reasons for so thinking, but the Board can come to no final decision on the subject on such general grounds as those now put forward. Reports must be submitted when necessary, and the attention of the Director of Revenue Settlement will be drawn to this portion of the Collector's letter. The establishment is said to have worked extremely well under Mr. Yarde, but the Collector thinks it must be strengthened.

36. *Bellary.*—There are no forests in this district, but only a few fuel plantations which are superintended by Mr. Yarde, the officer in charge of the Cuddapah forests. The plantations have not yet commenced to yield fuel, and the Inspector says that, as in Cuddapah, they are not at all promising.

37. *Kurnool.*—The Collector states that the decrease in the collections of seigniorage during the year is partly due to certain renters of the adjacent forests belonging to the Kalastry Zemindar under-selling the Government. Timber is also said to be smuggled from Government jungles, but this evil will be abated, now that the Collector has succeeded in getting Achayya's land for Government (G. O., dated 13th October 1873, No. 1,098). The Collector will be called upon to report whether the Kalastry Zemindar's forest cannot be obtained on lease, and, if so, at what cost.

38. *North Arcot.*—Illicit felling is rife, and conservancy, according to the Inspector, in a chaotic state. The Collector has suggested certain measures to remedy the evil, and he has been called upon to report further on the subject. The Mamundur reserve promises to be very successful. The Inspector remarks on the great success of Casuarina planting in beds of rivers, etc. The plantation should be extended wherever it is possible to do so.

Board's Proceedings, dated 23rd April 1873, No. 626.

39. *South Arcot.*—No forests are reserved, but the better sorts of timber are felled departmentally. There are ten fuel reserves; planting went on in seven, fencing in one, and preliminary patrolling, etc., in two. There are three plantations, one new, doing well. Several jungle conservancy plantations and nurseries, etc., were placed under the Deputy-Conservator. The establishment has been weakened by constant illness, and is said to be too small.

40. *Trichinopoly and Tanjore.*—In these districts there are no forests, but only a few fuel plantations which have been carefully managed. They have not yet commenced to pay. The Inspector fears that no very great progress has been made towards forming good permanent railway fuel plantations in Trichinopoly, and urges the importance of conservancy generally, and especially in the padugays, now that the increasing price of coal makes the railways still more dependent on supplies of wood fuel.

41. *Madura.*—The Teak plantations in the Periacolum and Pulney Taluqs have been extended during the year. A considerable number of Australian trees were also planted on the Pulney Hills.

42. *Tinnevelly.*—The Collector has placed the conservancy of certain forests near the sources of the rivers under the immediate control of the neighbouring Tahsildars instead of the Sub-Overseers of the Forest Department. The demand for timber in the district is stated to be small, the centrings of the Palamcottah and Ambasamoodrum bridges, which have been offered for sale, having glutted the market. The Collector also remarks that the Travancore Government under-sell the Madras Government. The Inspector bears witness to the success of the Collector's efforts to make fuel reserves on channel-banks, etc. The Collector will report on the proposal when he favours to divide the pay of the Overseers between Imperial and Local Funds. The system of felling on license has been abandoned, except in the case of persons cutting timber for building purposes.

43. *Coimbatore, Anamallay Reserve Forests.*—The Teak forest has been declared a reserve forest and closed to all but servants of Government. The Collector has inspected the Teak and Rosewood forests, and submits a valuable report. A large quantity of timber felled long ago, and figuring as stock assets in the accounts, is stated to be still lying in the forests. Endeavours are being made to remove it to the depôts and sell it to the best advantage. More has been removed from the forests than in any previous year. The necessity for a liberal fixed allotment for working charges, of making and improving roads, and of sparing no expense in keeping Forest Officers in health by giving them the means of building good houses in healthy sites, etc., are dwelt on by the Collector, and he bears strong testimony to the zeal and efficiency of Mr. Douglas, the Deputy-Conservator in charge.

Do. Unreserved Forests, etc.—The time has evidently come when the encroachments of cultivation on forest must be checked, and the Collector has given his attention to the subject. A large fuel reserve is to be formed on a tract of land which was long in dispute between the Nambiddy of Collingode and Coimbatore.

44. *Bolumputty.*—This forest is worked entirely under the license system.

45. *Mettapolliem.*—There is only one fuel reserve in Mettapolliem. This is expected in time to supply a sufficient quantity of fuel for the use of the Nilgiri branch of the railway.

46. *Sattiamangalum, Bhowany, and Collegal.*—The work in the Sandalwood plantations was vigorously prosecuted, and they are reported to be thriving. The Collector visited these forests of the Burghoor ghaut, and found that the existing

system of leasing the right of collecting seigniorage to fuel contractors has given rise to great abuses. The subject is now under investigation, and will be shortly laid before Government.

Board's Proceedings, dated 29th May 1873, Forest No. 27.

47. *Nilgiris, Mudumallay, and Seegur.*—The Commissioner in whose charge these forests have been placed lately makes no report; and the Deputy-Conservator's Report does not call for any special remark.

48. *Salem.*—The storm of the 2nd May 1872 is stated to have done great damage to the forests. Four new depôts were opened during the year in the Tripatore Range, and the Collector is endeavouring to increase the number, and hopes that there will be a large increase of revenue during 1873-74. It has been found possible to dispose of the long grass and dead wood in some of the reserves without their being injured, and the danger of fires has thus been reduced.

49. *South Canara.*—All the works connected with the removal of timber is now done by hired elephants and cooly labour. The Collector is endeavouring to introduce the contract system which he hopes will prove more economical. Endeavours are also being made to increase the number of the sale depôts.

50. *Malabar, Nellambore.*—The Nellambore plantation now contains 18,615 acres, of which 2,790 are planted with Teak; 4,200 acres of natural forest and 88 acres of Teak plantation were purchased from the Eddawanha Rajah for Rupees 80,000 in the year under report; a fair revenue is obtained from the natural forest in the parts not yet planted and from thinnings in the plantations. The survey has been completed and maps lithographed. During the year 2,35,000 seedlings were set out in 235 acres, and this is said to be by far the largest amount of planting effected in any single season. The Collector has compiled a valuable account of the expenditure and receipts from the commencement, and shows conclusively that the plantations will be very profitable to Government.

51. *Wynaad.*—The Teak belt consists of three natural Teak forests which accrued to Government in consequence of rebellion of the owner at the end of the last century. A large quantity of timber felled several years ago is still lying about in the forest, but endeavours are being made to dispose of it. As soon as this has been effected, felling will be proceeded with in a more systematic manner than hitherto. A survey is said to be much required.

52. *Chenat Nair.*—This forest consists of certain escheat lands near Palghaut. During the year 1,800 acres of natural forest were purchased and added to it. The tract is stated to be within influence of the monsoon, so that by fencing and strict preservation a large supply of firewood at a very low cost will result from spontaneous growth. No felling took place during the year, because the forest required rest.

53. The reports received from the Inspector of Forests, the Collectors, and their Deputy-Conservators are herewith forwarded to Government in original, as it is too late to print them. Some of them, however, contain valuable information, and the Board request that they may be printed after the report is reviewed by Government.

A.—*Detailed Statement of Receipts and Charges under A, "Conservancy and Working," B, "Establishment and Contingencies" of the Forest Department for 1872-73.*

Budget classified Items.	Central Office.	Gumsur and Suradah.	Golcondah.	Cuddapah.	Bellary.	Kurnool.	North Arcot.	South Arcot.	Trichinopoly.	Tanjore.	Madura.	Tinnevelly.
1	2	3	4	5	6	7	8	9	10	11	12	13
Receipts.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
I. Sale of Timber brought to Depôt by Government Agency.	...	428	...	21,884	...	171	5,404	1,342	...	...	4,096	3,255
Value of Timber supplied to D. P. Works and other Depts.	...	238	...	...	...	247	...	...	...	...	...	357
II. Sale of Timber, Firewood, Bamboos, etc....	...	2,993	40	50,827	...	29,491	13,997	2,686	573	...	11,413	9,911
III. Duty on foreign Timber	...	...	...	...	...	150	...	...	...	...	...	...
IV. Permit fees and rent of Jungles	...	...	...	...	...	...	...	...	...	...	...	...
V. Grazing dues	...	...	...	...	...	...	...	...	...	...	...	...
VI. Sale of fruits, babool pods, etc...	...	...	...	...	...	48	...	...	32	...	...	2,944
VII. Do of confiscated drift and waif Timber	...	18	...	530	...	866	157	44	...	...	161	345
VIII. Fines and forfeitures	...	...	...	...	...	...	...	...	..	..	...	...
IX. Miscellaneous receipts	...	...	10	20	...	38	6	27	68	...	334	7
Total Receipts...	...	3,677	50	73,261	...	31,011	19,564	4,099	673	...	16,004	16,819
A. Conservancy and Working.												
I. Timber expenses for felling, etc.	...	308	...	7,797	...	403	973	509	10	...	8,531	1,113
II. Purchase of elephants and cattle, etc.	...	...	...	...	...	55	8	3	25	...	94	...
III. Feed and keep of do. do.	...	195	...	...	...	...	...	...	...	...	...	...
IV. Rent of leased forests, etc.	...	...	...	...	...	...	...	...	...	...	...	...
V. Charges connected with the collection of revenue on grass.	...	...	...	..	...	16	...	50	...	...	...	856
VI. Plantations	...	36	...	8,064	1,243	364	6,126	2,481	8,360	173	1,027	1,108
(a) Fuel reserves	...	...	...	108	...	...	858	...	201	...	1,041	...
VII. Forest work, viz., cutting of creepers, etc.	...	9	...	...	...	...	...	87	...	...	845	...
VIII. Forest survey	...	...	...	...	...	...	...	...	...	...	...	...
IX. Experiments to test the value of different timber	...	..	...	...	...	...	1	...	...	...	...	...
X. Communications, Buildings, etc.	...	...	...	1,172	...	982	276	...	177	...	330	161
Amount refunded into the Treasury...	...	...	...	...	...	..	...	...	28	...	...	6
Miscellaneous charges	...	...	...	.	...	...	...	...	...	...	...	...
	...	548	...	17,141	1,243	1,820	8,242	3,130	8,801	173	11,868	3,244

A.—*Detailed Statement of Receipts and Charges under A. "Conservancy and Working," B. "Establishment and Contingencies," etc.*—(Continued.)

Budget classified items.	Anamallay.	Bolumputty	Collegal.	Sigur and Sathiamangalam.	Mettapoliem.	Bhowany.	Mudumallay.	Salem.	South Canara.	Wynaad.	Nelambur.	Chenat Nair.	Total.
	14	15	16	17	18	19	20	21	22	23	24	25	26
Receipts.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
I. Sale of Timber brought to Depôt by Government Agency.	5,163	...	17,000	14,896	..	23,488	32,975	10,493	2,707	21,188	16,807	600	1,81,897
Value of Timber supplied to D. P. Works and other Depts	3,117	3	149	...	...	...	12,968	189	2,535	374	304	241	20,722
II. Sale of Timber, Firewood, Bamboos, etc.	3,308	3,556	560	1,033	246	2,241	...	34,605	11,522	...	...	...	1,79,002
III. Duty on foreign Timber	...	...	..	...	...	...	..	...	..	...	...	...	150
IV. Permit fees and rent of Jungles	...	...	652	1,323	552	893	100	18,096	6,119	...	...	...	27,735
V. Grazing dues	...	...	...	...	...	...	...	...	...	...	...	...	...
VI. Sale of fruits, babool pods, etc.	61	...	...	...	...	...	...	183	234	...	...	...	3,502
VII. Do. of confiscated drift and waif Timber	...	...	...	...	...	64	...	528	442	...	...	...	3,155
VIII. Fines and forfeitures	...	...	...	...	...	...	...	...	6	...	...	...	6
IX. Miscellaneous receipts	...	...	...	1	9	...	...	140	31	1,907	...	...	2,598
Total Receipts...	11,649	3,559	18,361	17,253	807	26,686	46,043	64,234	23,596	23,469	17,111	841	4,18,767
A. Conservancy and Working.													
I. Timber expenses for felling, etc.	15,432	65	5,034	3,063	421	14,502	15,960	6,948	4,722	3,806	6,222	1,296	97,115
II. Purchase of elephants and cattle, etc....	58	...	75	298	56	1,178	108	...	522	...	276	47	2,803
III. Feed and keep of do. do.	8,296	...	492	193	...	1,051	5,487	...	2,959	...	...	416	19,089
IV. Rent of leased forests, etc.	...	...	...	...	...	...	3,635	...	11	...	80	...	3,726
V. Charges connected with the collection of revenue on grass.	173	200	...	...	...	...	...	675	63	345	...	17	2,395
VI. Plantations	851	...	4,635	4,238	...	94	3,280	862	1,393	14	89,915	22,984	1,57,248
(a) Fuel reserves	...	...	...	...	...	...	...	1,514	...	...	...	...	3,722
VII. Forest work, viz., cutting of creepers, etc....	1,248	10	...	...	...	3	...	...	...	...	...	24	2,226
VIII. Forest survey...	...	...	...	...	...	...	...	...	...	...	106	...	106
IX. Experiments to test the value of different timber ...	...	...	...	...	...	...	...	2	...	...	49	...	52
X. Communications, Buildings, etc.	3,997	160	452	51	1,882	291	504	348	196	24	246	27	11,276
Amount refunded into the Treasury	28	...	...	...	...	...	...	...	...	...	...	...	52
Miscellaneous charges	...	...	...	...	...	...	...	79	...	3,836	...	...	3,915
	30,083	435	10,688	7,843	2,359	17,119	28,974	10,428	9,866	8,025	96,894	24,811	3,03,735

A.—*Detailed Statement of Receipts and Charges under A. "Conservancy and Working," B. "Establishment and Contingencies," etc.*—(Continued.)

Budget classified items.	Central Office.	Gumsur and Suradah.	Golcondah.	Cuddapah.	Bellary.	Kurnool.	North Arcot.	South Arcot.	Trichinopoly.	Tanjore.	Madura.	Tinnevelly.
	27	28	29	30	31	32	33	34	35	36	37	38
B.—*Establishment.*	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1. Pay of Inspector of Forests...	13,847	...	...	...	..	...	...	...	...	...	...	...
2. Pay of Executive Officers	4,346	...	...	2,912	...	1,428	2,912	3,134	4,147	...	4,511	3,293
Military pay of do.	...	...	...	...	...	...	...	...	...	...	...	...
Pay of the Forester in charge	...	1,200	...	...	...	...	...	...	...	...	...	...
3. Office Establishment—												
(*a*) Direction	4,318	...	...	...	...	...	...	...	..	...	...	...
(*b*) Executive	...	408	...	300	...	608	394	150	540	...	480	521
4. Forest Conservancy Establishment	...	576	648	3,543	336	1,202	3,191	1,120	...	775	3,182	4,378
5. Timber Depôt and work do.	...	...	...	...	...	1,950	689	...	...	...	...	...
6. Deputation and Special Allowances	...	...	...	...	...	...	...	..	...	...	140	...
7. Dresser's Pay	...	...	...	...	...	...	...	...	...	...	...	...
II. Travelling allowance including batta and travelling expenses.												
1. Inspector of Forests	3,326	...	...	...	...	...	...	...	...	...	...	...
2. Executive Officers	2,268	360	...	1,641	...	1,056	1,641	1,641	2,571	...	510	1,260
3. Subordinate Establishments	131	...	120	180	...	180	348	120	135	...	295	565
III. Contingencies.												
IV. Sundries	1,123	43	8	78	...	161	131	178	90	59	497	272
Total of Establishment and Contingencies...	29,359	2,587	776	8,654	336	6,585	9,306	6,343	7,483	834	9,615	10,289
Grand Total Rupees...	29,359	3,135	776	25,795	1,579	8,405	17,548	9,473	16,284	1,007	21,483	13,533

A.—*Detailed Statement of Receipts and Charges under A. "Conservancy and Working," B. "Establishment and Contingencies," etc.*—(Concld.)

Budget classified items.	Anamally.	Bolumputty.	Collegal.	Sigur and Sathiamangalum.	Mettapoliem.	Bhowany.	Mudumullay.	Salem.	South Canara.	Wynaad.	Nelambur.	Chennt Nair.	Total.
	39	40	41	42	43	44	45	46	47	48	49	50	51
B.—*Establishment.*	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1. Pay of Inspector of Forests...	...	...	...	...	...	...	...	...	...	...	..	...	13,847
2. Pay of Executive Officers	4,500	...	...	...	...	...	4,800	5,100	4,815	3,064	4,843	...	53,805
Military pay of do.	...	...	...	...	...	...	7,555	...	...	...	...	...	7,555
Pay of the Forester in charge...	...	...	...	...	...	...	...	...	...	...	...	...	1,200
3. Office Establishment—													
(*a*) Direction	...	...	...	...	...	...	...	...	...	...	...	...	4,318
(*b*) Executive	708	...	...	192	...	...	1,368	1,124	372	929	983	192	9,269
4. Forest Conservancy Establishment	3,827	936	2,064	1,476	1,347	2,615	2,304	2,925	3,690	1,245	2,379	1,168	44,927
5. Timber Depôt and work do.	192	...	...	...	...	...	...	...	...	...	936	...	3,767
6. Deputation and Special Allowances	...	...	...	...	...	...	...	1,027	...	...	...	...	1,167
7. Dresser's Pay	300	...	...	...	...	...	...	...	...	...	...	...	300
II. Travelling allowance including batta and travelling expenses.													
1. Inspector of Forests	...	...	...	...	...	...	...	...	...	...	..	...	3,326
2. Executive Officers...	1,912	...	...	...	...	...	766	1,641	1,050	1,461	1,037	.	20,815
3. Subordinate Establishments...	714	...	360	180	152	680	120	808	534	9	124	360	6,115
III. Contingencies.													
IV. Sundries...	412	46	8	3	5	10	152	345	160	65	126	29	4,001
Total of Establishment and Contingencies...	12,565	982	2,432	1,851	1,504	3,305	17,065	12,970	10,621	6,773	10,428	1,749	1,74,412
Grand Total Rupees...	42,648	1,417	13,120	9,694	3,863	20,424	46,039	23,398	20,487	14,798	1,07,322	26,560	4,78,147

B.—Statement showing the quantity of timber felled departmentally in the several forests during the official year 1872-73.

Ranges.	Division of the Ranges.	Teakwood.		Ebony or Blackwood.		Rosewood.		Sandalwood		Red Saunder roots or posts.	
		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
1	2	3	4	5	6	7	8	9	10	11	12
		C. FT	RS. A. P	C. FT.	RS A. P	C. FT.	RS. A. P.	C. FT.	RS. A. P.	C. FT. MDS.	RS. A. P.
Gumsur and Suradah	Gumsur and Suradah										
Golcondah											
Cuddapah	Cuddapah									82,447 Mds 3,305 c. ft.	12,053 1 3
Bellary											
Kurnool											
North Arcot	Vellore										
	Kurkumbady							40	120 0 0		
South Arcot	Chengum									976	1,199 0 0
	Trinomallai										
Trichinopoly											
Madura	Pariacolum										
Tinnevelly	Tinnevelly										
Annamallai	Leased Forest	3,334	2,487 8 6			6,462	3,775 12 0				
Bhowany	Bhowany							5,933	10,382 5 0		
	Neringepett										
	Erode										
Collegal	Collegal										
	Bylore			90	45 0 0			4,039	6,525 2 0		
	Buswanathum jungle										
Segur and Sattiamungalum	Tullamallai										
	Sathiamungalum	37	18 10 0	113	56 12 0			2,902	4,917 6 0		
	Hossanoor			89	44 12 0						
	Gazulhutty										
Mettapoliem	Mettapoliem										
Bolamputty											
Mudumallai											
Salem	Denkincottah	2,109	1,270 7 3								
	Tripatore	5,716	4,419 0 2					2,250	7,030 13 0		
South Canara	South Canara			3,150	2,559 6 0			165	515 6 0		
Wynaad	Chidlette	3,836	1,918 6 0								
	Coodracote	2,297	1,148 8 0	303	113 7 0						
Nelambur	Nelumboor										
Chenat Nair	Sholacaray	2,137	579 3 9								
	Total	19,466	11,841 11 8	3,745	2,819 5 0	6,462	3,775 12 0	15,329	39,491 0 0	4,281 c. ft. 82,447 Mds.	13,252 1 3

B.—Statement showing the quantity of timber felled departmentally in the several forests during the official year.—(Concluded.)

Ranges.	Division of the Ranges.	Other Junglewood used as Timber.		Bamboos.		Railway Fuel.		Saplings.		Forest produce.		Total.
		Quantity	Value.	Quantity	Value.	Quantity	Value.	Quantity.	Value.	Quantity	Value.	
		13	14	15	16	17	18	19	20	21	22	23
		C. FT	Rs. A. P.	NO.	Rs. A. P.	TONS.	Rs. A. P.		Rs. A. P.	MDS.	Rs. A. P.	Rs. A. P.
Gumsur and Suradah ...	Gumsur and Suradah	1,962	579 10 0	.....	.....	.....	.....	.....	.....	.....	.....	579 10 0
Golcondah	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cuddapah	Cuddapah	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	12,053 1 3
Bellary	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Kurnool	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
North Arcot	Vellore	257	172 0 0	.....	.....	.....	.....	.....	.....	.....	.....	292 0 0
	Kurkumbady	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,199 0 0
South Arcot	Chengum	467	297 11 3	.....	.....	.....	.....	.....	.....	147	119 10 3	417 5 11
	Trinomallai	344	170 13 6	.....	.....	.....	.....	.....	.....	.....	.....	170 13 6
Trichinopoly	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Madura	Pariacolum	7,715	7,318 3 11	.....	.....	.....	.....	.....	.....	.....	.....	7,318 3 11
Tinnevelly	Tinnevelly	593	731 14 9	.....	.....	.....	.....	.....	.....	.....	.....	731 14 9
Anamallai	Leased Forest	685	384 4 6	.....	.....	.....	.....	.....	.....	.....	.....	6,647 9 0
Bhowany	Bhowany	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10,382 5 0
	Neringepett	.....	.....	.....	.....	20	60 0 0	.....	.....	.....	.....	60 0 0
	Erode	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Collegal	Collegal	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6,525 2 0
	Bylore	1,584	792 0 0	.....	.....	.....	.....	.....	.....	.....	.....	837 0 0
	Buswanathum jungle	293	146 14 0	.....	.....	.....	.....	.....	.....	.....	.....	146 14 0
Segur and Sattiamungalum.	Tullamallai	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4,917 6 0
	Sathiamungalum	247	123 10 0	.....	.....	.....	.....	.....	.....	.....	.....	199 0 0
	Hossanoor	351	175 2 0	.....	.....	.....	.....	.....	.....	.....	.....	219 14 0
	Gazalhutty	161	80 2 0	.....	.....	.....	.....	.....	.....	.....	.....	80 2 0
Mettapoliem	Mettapoliem	.....	.....	.....	.....	100	300 0 0	.....	.....	.....	.....	300 0 0
Bolumputty	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Mudumallai	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Salem	Denkincottah	.....	.....	.....	.....	.....	.....	.....	.....	36	42 8 0	3,343 12 3
	Tripatore	.....	.....	.....	.....	.....	.....	.....	.....	182	633 7 11	5,566 14 1
South Canara	South Canara	17,785	7,785 10 3	16,000	480 0 0	.....	.....	.....	.....	.....	.....	10,825 0 3
Wynaad	Chidlette	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,913 6 0
	Coodracote	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,261 15 0
Nelambur	Nelumboor	.....	.....	.....	.....	.....	.....	531	397 14 10	.....	.....	397 14 10
Chenat Nair	Sholacaray	2,200	904 2 0	.....	.....	.....	.....	.....	.....	.....	.....	1,483 5 9
	Total ...	34,634	19,662 2 7	16,000	480 0 0	120	360 0 0	.....	397 14 10	365	794 10 2	82,874 9 6

C.—*Statement showing the sale of Timber, etc., in the several forests during the official year* 1872-73.

Ranges.	Name of Depôt.	Teakwood.		Ebony or Blackwood.		Rosewood.		Sandalwood.		Red saunder roots or posts.	
		Quantity.	Amount realized.	Quantity.	Amount realized.	Quantity.	Amount realized.	Quantity.	Amount realized.	Quantity.	Amount realized.
1	2	3	4	5	6	7	8	9	10	11	12
		C. F.	Rs. A. P.	C. F.	Rs. A. P.	C. F.	Rs. A. P.	Mds.	Rs. A. P.	Mds.	Rs. A. P.
Gumsur and Suradah.	Russelcondah ...	...	.....	...	.....	...	.....	...	.....	...	.....
	Gopaulpore ...	...	.....	...	.....	...	.....	...	.....	...	.....
Golcondah ...	.....	...	.....	...	.....	...	.....	...	.....	...	.....
Cuddapah ...	Codoor	...	.....	...	.....	...	.....	...	.....	12,271	20,686 4 0
Bellary	.....	...	.....	...	.....	...	.....	...	.....	...	.....
Kurnool ...	Nundial	...	.....	...	.....	...	.....	...	.....	...	.....
	Kurnool	154	154 1 0	...	.....	...	.....	...	.....	...	.....
	Cumbum	...	.....	...	.....	...	.....	...	.....	...	.....
North Arcot...	Kurcumbady ...	...	.....	...	.....	...	.....	...	.....	11,800 c. f. 593	3,260 10 10
	Vellore	...	.....	...	.....	...	.....	436	2,143 9 8	...	.....
South Arcot...	Chengum	...	.....	...	.....	...	.....	...	.....	...	.....
	Trinomallay ...	...	.....	...	.....	...	.....	...	.....	...	.....
Trichinopoly ...	.....	...	.....	...	.....	...	.....	...	.....	...	.....
Madura ...	Pariacolum ...	16	24 5 4	51	64 10 0	...	.....	...	.....	...	.....
	Cumbum	26	32 12 4	133	149 8 0	...	.....	...	.....	...	.....
	Palani	...	.....	...	.....	...	.....	...	.....	...	.....
	Chutraputty ...	...	.....	...	.....	...	.....	...	.....	...	.....
	Madura	221	374 0 7	49	71 0 9	...	.....	...	.....	...	.....
Tinnevelly ...	Tinnevelly... ...	...	.....	...	.....	...	.....	...	.....	...	.....
Anamallay...	Pothanore... ...	...	4,496 1 1	...	.....	...	.....	...	.....	...	.....
	Coimbatore ...	...	940 13 9	...	.....	...	370 15 5	...	.....	...	.....
	Anamallay ...	...	1,677 12 6	...	.....	...	.....	...	.....	...	.....
Bhowany ...	Bhowany	...	.....	...	.....	...	.....	6,065	20,000 0 0	...	.....
	Erode	...	.....	...	.....	...	.....	...	.....	...	.....

C.—*Statement showing the sale of Timber, etc.*—(Continued.)

Range.	Name of Depôt.	Teakwood.		Ebony or Blackwood.		Rosewood.		Sandalwood.		Red Saunder roots or posts.	
		Quantity.	Amount realized.	Quantity.	Amount realized.	Quantity.	Amount realized.	Quantity.	Amount realized.	Quantity.	Amount realized.
		13	14	15	16	17	18	19	20	21	22
		C. F.	Rs. A. P.	C. F.	Rs. A. P.	C. F.	Rs. A. P.	C. F.	Rs. A. P.	C. F.	Rs. A. P.
Collegal ...	Collegal	...	.....	...	.....	...	.....	5,187	17,000 0 0	.....	.....
	Buswanathum Jungle	...	.....	...	.....	...	.....	...	.....	.....	.....
Sigur and Satimangalum.	Tullamallai ...	...	.....	...	.....	...	.....	4,226	14,000 0 0	.....	.....
	Sigur...	1,265	835 7 6	...	.....	...	.....	...	.....	.....	.....
	Sathiamangalum.	...	.....	14	18 7 0	...	.....	34	33 12 0	.....	.....
	Gazulhutty ...	...	.....	...	.....	...	.....	7	8 7 0	.....	.....
Mettupoliem ...	.....	...	.....	...	.....	...	.....	...	.....	.....	.....
Bolumputty ...	Coimbatore ...	...	2 12 5	...	.....	...	.....	...	.....	.....	.....
Mudumullay...	Mysore	29,803	29,803 2 8	...	.....	...	.....	...	.....	.....	.....
	Mudumullay ...	15	22 14 0	...	.....	...	.....	...	.....	.....	.....
	Ootacamund ...	8,237	16,117 7 10	...	.....	...	.....	...	.....	.....	.....
Salem	Denkincottah ...	...	.....	...	.....	...	.....	1,131	4,006 7 0	.....	.....
	Penagaram ...	...	.....	...	.....	...	.....	...	.....	.....	.....
	Tripatore	...	.....	...	.....	...	.....	76	272 13 9	.....	.....
	Vaniembady ...	...	.....	...	.....	...	.....	...	.....	.....	.....
	Harroor	...	.....	...	.....	...	.....	...	.....	.....	.....
	Salem...	...	.....	...	.....	...	.....	66	162 0 3	.....	.....
South Canara...	South Canara ...	...	.....	49	46 3 0	...	.....	...	.....	.....	.....
Wynaad ...	Mannantoddy ...	...	387 1 0	...	.....	...	.....	...	.....	.....	.....
	Mysore	...	21,174 2 9	...	.....	...	.....	...	.....	.....	.....
Nelumbur ...	Nelumbur	2,684	2,070 14 9	302	257 2 7	...	.....	...	.....	.....	.....
Chenat Nair...	Pothanore	...	573 0 0	...	.....	...	.....	..	.....	.....	.....
	Coimbatore ...	...	101 1 5	...	.....	...	15 4 3	..	.....	.....	.....
	Total...	42,421	78,787 14 11	598	606 15 4	...	386 3 8	17,228	57,627 1 8	24,071m. 593 c. ft.	23,946 14 10

C.—*Statement showing the sale of Timber, etc., in the several forests during the official year* 1872-73.—(Continued.)

Ranges.	Name of Depôt.	Other Junglewood used as Timber.		Railway Fuel and Firewood.		Bamboos.		Forest produce.		Saplings.		Total amount of value realized.
		Quantity.	Amount realized.	Quantity.	Amount realized.	Quantity.	Amount realized.	Quantity.	Amount realized.	Quantity.	Amount realized.	
		23	24	25	26	27	28	29	30	31	32	33
		C. F.	RS. A P.	TONS.	RS. A. P.	NO.	RS. A. P.	MDS.	RS. A. P.	NO.	RS. A. P.	RS. A. P.
Gumsur and Suradah.	Russelcondah ...	1,458	361 2 0	...	.....	...	.....	...	.....	...	.....	361 2 0
	Gopaulpore ...	727	304 8 0	...	.....	...	.....	...	.....	...	.....	304 8 0
Golcondah ...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	.....
Cuddapah ...	Codoor	1,455	1,197 15 7	...	.....	...	.....	...	.....	...	.....	21,884 3 7
Bellary	.....	...	.....	...	.....	...	.....	...	.....	...	.....	.....
Kurnool ...	Nundial	42	24 4 0	...	.....	...	.....	...	.....	...	.....	24 4 0
	Kurnool	...	.....	...	.....	...	.....	...	.....	...	.....	154 1 0
	Cumbum	300	239 13 4	...	.....	...	.....	...	.....	...	.....	239 13 4
North Arcot.	Kurcumbady ...	...	.....	...	.....	...	.....	...	.....	...	.....	3,260 10 10
	Vellore	...	.....	...	.....	...	.....	...	.....	...	.....	2,143 9 8
South Arcot...	Chengum	593	888 11 4	5	25 10 0	...	.....	8	8 9 6	...	.....	922 14 10
	Trinomallay ...	554	419 7 7	...	.....	...	.....	...	.....	...	.....	419 7 7
Trichinopoly ...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	.....
Madura ...	Pariacolum ...	495	613 0 7	...	.....	...	.....	...	.....	...	.....	701 15 11
	Cumbum	615	692 7 0	...	.....	...	.....	...	.....	...	.....	874 11 4
	Palany	99	111 9 5	...	.....	...	.....	...	.....	...	.....	111 9 5
	Chuttraputty ...	112	126 7 0	...	.....	...	.....	...	.....	...	.....	126 7 0
	Madura	1,288	1,836 5 5	...	.....	...	.....	...	.....	...	.....	2,281 6 9
Tinnevelly ...	Tinnevelly... ...	2,280	3,612 7 8	...	.....	...	.....	...	.....	...	.....	3,612 7 8
Anamallay ...	Pothanore	...	.....	...	.....	...	.....	...	.....	...	.....	4,496 1 1
	Coimbatore ...	...	795 0 9	...	.....	...	.....	...	.....	...	.....	2,106 13 11
	Annamallay ...	...	.....	...	.....	...	.....	...	.....	...	.....	1,677 12 6
Bhowany ...	Bhowany	...	.....	...	.....	...	.....	...	.....	...	.....	20,000 0 0
	Erode	...	.....	581	3,487 8 0	...	.....	...	.....	...	.....	3,487 8 0

C.—*Statement showing the sale of Timber, etc.*—(Continued.)

Ranges.	Name of Depôt.	Other Junglewood used as Timber.		Railway Fuel and Firewood.		Bamboos.		Forest produce.		Saplings.		Total amount of value realized.
		Quantity.	Amount realized.	Quantity.	Amount realized.	Quantity.	Amount realized.	Quantity.	Amount realized.	Quantity.	Amount realized.	
		34	35	36	37	38	39	40	41	42	43	44
		C. F.	Rs. A. P.	Tons.	Rs. A. P.	No.	Rs. A. P.	Mds.	Rs. A. P.	No.	Rs. A. P.	Rs. A. P.
Collegal ...	Collegal	...	.....	...	.....	...	.....	...	.....	...	.....	17,000 0 0
	Buswanathum Jungle	148	148 8 0	...	.....	...	.....	...	.....	...	.....	148 8 0
Sigur and Sathiamangalum.	Tullamallai ...	...	.....	...	.....	...	.....	...	.....	...	.....	14,000 0 0
	Sigur	...	.....	...	.....	...	.....	...	.....	...	.....	835 7 6
	Sathiamangalum.	...	.....	...	.....	...	.....	...	.....	...	.....	52 3 0
	Gazulhutty ...	...	.....	...	.....	...	.....	...	.....	...	.....	8 7 0
Mettupoliem ...	.....	...	.....	...	.....	...	.....	...	.....	...	.....	.....
Bolumputty ...	Coimbatore ...	...	.....	...	.....	...	.....	...	.....	...	.....	2 12 5
Mudumullay ..	Mysore	...	.....	...	.....	...	.....	...	.....	...	.....	29,803 2 8
	Mudumullay ...	...	.....	...	.....	...	.....	...	.....	...	.....	22 14 0
	Ootacamund ...	...	.....	...	.....	...	.....	...	.....	...	.....	16,117 7 10
Salem	Denkincottah ...	2,691	2,523 8 7	...	.....	...	.....	111	206 3 0	...	.....	6,736 2 7
	Penagaram ...	252	128 1 10	...	.....	...	.....	...	.....	...	.....	128 1 10
	Tripatore	2,663	2,274 4 3	...	.....	...	.....	41	474 15 3	...	.....	3,022 1 3
	Vaniembady ...	396	295 14 11	...	.....	...	.....	...	.....	...	.....	295 14 11
	Haroor	376	313 1 0	...	.....	...	.....	...	.....	...	.....	313 1 0
	Salem	9	24 12 6	...	.....	...	.....	...	.....	...	.....	186 12 9
South Canara...	South Canara ...	6,179	3,682 9 0	...	.....	34,090	1,513 10 6	...	.....	...	.....	5,242 6 6
Wynaad ...	Manantandy ...	...	.....	...	.....	...	.....	...	.....	...	.....	387 1 0
	Mysore	...	.....	...	.....	...	.....	...	.....	...	.....	21,174 2 9
Nelumbur ...	Nelumbur	16,139	5,477 7 10	b. 1126	251 8 0	20,276	1,674 14 0	...	.....	11,229	7,378 14 0	17,110 13 2
Chenat Nair...	Pothanore... ...	...	.....	...	.....	...	.....	...	.....	...	.....	573 0 0
	Coimbatore ...	...	150 15 0	...	.....	...	.....	...	.....	...	.....	267 4 8
	Total ...	c. f 38,871	26,242 6 7	t 586 b.1,126	3,764 10 0	54,366	3,188 8 6	160	689 11 9	11,229	7,378 14 0	2,02,619 5 3

D.—*Statement showing the particulars of Stock in hand at the commencement and close of the official year* 1872-73 *in the several Forests.*

Ranges.	Teak in cubic feet.	Amount.	Ebony or Blackwood in cubic feet.	Amount.	Rosewood in cubic feet.	Amount.	Saundal-wood in Maunds.	Amount.	Red Saunder roots or posts.	Amount.
1	2	3	4	5	6	7	8	9	10	11
		Rs. A. P.		Rs. A. P.		Rs. A. P.		Rs. A. P.		Rs. A. P.
Gumsur and Surada	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Golcondah	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cuddapah	.....	.....	.....	.....	.....	.....	.....	.....	cubic ft. 500	400 0 0
Bellary	.....	.....	.....	.....	.....	.....	.....	.....	mds. 26,480	5,296 10 1
Kurnool	82	154 1 0	.....	.....	.....	.....	.....	.....	.....	.....
North Arcot	.....	.....	.....	.....	.....	.....	396	1,188 0 0	.....	.....
									mds. 14,936	2,979 12 10
									cubic ft. 147	220 8 0
South Arcot	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Trichinopoly	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Madura	670	762 11 4	107	129 5 10	.....	.....	.....	.....	.....	.....
Tinnevelly	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Anamallay	71,882	1,29,005 12 3	.....	.....	12,108	8,429 0 0	.....	.....	.....	.....
Bhowany	.....	.....	.....	.....	.....	.....	1,389	4,341 0 0	.....	.....
Collegal	86	53 12 0	49	37 4 0	.....	.....	2,496	7,801 8 0	.....	.....
Sigur and Sathiamungalum	3,696	2,310 1 0	397	297 4 6	.....	.....	1,331	4,162 2 4	.....	.....
Mettupoliem	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bolumputty	42	25 2 4	.....	.....	44	56 0 6	.....	.....	.....	.....
Mudumallay	1,45,418	1,35,322 11 0	.....	.....	.....	.....	.....	.....	.....	.....
Salem	.....	.....	.....	.....	.....	.....	459	1,433 6 0	.....	.....
South Canara	217	146 3 6	4,000	2,746 0 0	.....	.....	.....	.....	.....	.....
Wynaad	36,001	29,024 1 0	.....	.....	.....	.....	.....	.....	.....	.....
Nelambur	13,036	9,776 9 2	927	695 4 0	.....	.....	.....	.....	.....	.....
Chenat Nair	2,615	1,994 13 0	.....	.....	1,389	2,191 10 6	.....	.....	.....	.....
Total...	.....	3,08,575 13 7	.....	3,905 2 4	.....	10,676 11 0	.....	18,926 0 4	.....	8,896 14 11

D.—*Statement showing the particulars of Stock in hand at the commencement and close of the official year* 1872-73.—(Concluded.)

Ranges.	Other jungle wood used as timber.	Amount.	Bamboos in cart or head loads.	Amount.	Railway fuel or firewood in tons.	Amount.	Sapling.	Amount.	Forest produce.	Amount.	Total.
	12	13	14	15	16	17	18	19	20	21	22
		Rs. A. P.		Rs. A. P.		Rs. A. P.		Rs. A. P.		Rs. A. P.	Rs. A. P.
Gumsur and Surada	4,058	831 0 0									831 0 0
Golcondah											
Cuddapah	2,572	3,213 13 3									8,910 7 4
Bellary											
Kurnool	329	829 5 4									983 6 4
North Arcot											4,388 4 10
South Arcot	1,730	1,298 6 10			11½	65 10 0					1,364 0 10
Trichinopoly											
Madura	9,522	9,840 15 9									10,733 0 2
Tinnevelly	10,636	15,954 8 5									15,954 8 5
Anamallay	133	136 12 1									1,37,571 8 4
Bhowany					1,963	5,890 8 0					10,231 8 0
Collegal	117	58 15 0									7,951 7 0
Sigur and Sathiamungalum	4,193	1,717 9 11									8,487 1 9
Mettupoliem											
Bolumputty	12	11 12 9									92 15 7
Mudumallay											1,35,323 11 0
Salem	1,831	1,274 6 1							76 Mds.	98 15 11	2,806 12 0
South Canara	41,114	20,380 7 11		2,433 11 0							25,706 6 5
Wynaad											39,024 1 0
Nalambur	27,094	6,967 8 5		1,295 9 6			84,307	11,531 0 0			80,265 15 1
Chenat Nair	1,436	846 11 3									5,033 2 9
Total...		63,362 4 3		3,729 4 6		5,956 2 0		11,531 0 0		98 15 11	4,35,658 4 10
Add total valuation of timber felled as per B...											82,874 9 6
											5,18,532 14 4
Deduct total valuation of timber sold during the year as per Statement C, Column 3...											1,73,896 13 6
Add increase of value of Stock removed from outlying depôts in certain forests during the year...											3,44,636 0 10
											53,731 13 5
Balance of Stock at the close of the year...											3,98,367 14 3

E.—*Statement showing Timber, etc., disposed of under the License and Voucher system in the several forests for the official year* 1872-73.

Ranges.	Teakwood.		Firewood and Railway Fuel.		Charcoal.		Other junglewood used as Timber.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
1	2	3	4	5	6	7	8	9
	C. FT.	RS. A. P.	TONS.	RS. A. P.	TONS.	RS. A. P.	C. FT.	RS. A. P.
Gumsur and Suradah	...	.....	236	84 8 6	...	.....	45,070	2,908 4 0
Golcondah	...	.....	...	.....	...	.....	b. l. 3	3 0 0
Cuddapah	...	.....	{ 16,492 { 707	36,940 6 6 1,584 13 0	} 7	35 10 0	1,02,380	11,032 6 0
Bellary	...	.....	...	....	...	.....	...	.....
Kurnool	...	.....	c. l. 273	55 11 0	c. l. 25,867	1,616 11 6	2,17,720	24,587 8 0
North Arcot	...	.....	c. l. 4,198	5,796 13 2	c. l. 1,065	548 7 0	34,780	3,478 2 0
South Arcot	...	.....	164	367 5 0	14	36 14 0	9,288	583 9 0
Trichinopoly	...	.....	...	573 0 6	...	.. ..	...	.....
Madura	...	.....	3,235	6,120 12 6	c. l. 732	732 4 0	44,361	2,345 6 1
Tinnevelly	...	.....	...	.....	...	.....	6,544	9,910 7 11
Anamallay	322	56 11 0	331	741 4 9	15	104 13 0	...	.....
Bhowany...	2,480	620 0 0	...	.....	...	.....	6,416	1,604 0 0
Collegal	460	115 0 0	...	.....	...	.....	1,748	437 0 0
Sigur and Sathiamungalum ...	53	20 0 0	c. l. 202	505 0 0	...	.....	1,689	422 2 0
Mettapoliem	...	.....	...	.....	...	.....	168	186 6 0
Bolumputty	1,998	283 6 6	969	2,186 8 3	21	109 6 3	...	.....
Mudumallay	...	.....	...	.....	...	.....	...	.....
Salem	50,896	4,087 15 9	12,122	17,268 2 5	868	1,862 1 0	...	.....
South Canara...	...	.....	1,734	7,285 8 9	10	45 0 0	2,712	1,042 13 1
Wynaad	...	.....	...	.....	...	.....	...	.....
Nelambur	...	.....	...	.....	...	.....	...	.....
Chenat Nair	...	.....	...	.....	...	.....	...	.....
Total...	56,209	5,183 1 3	35,990 c. l. 4,673	79,509 14 4	T. 935 c. l. 27,664	5,091 2 9	c. ft. 4,72,876 b. l. 3	58,541 0 1

Statement showing Timber, etc., disposed of under the License and Voucher system in the several forests for the official year 1872-73.

Ranges.	Bamboos.		Forest produce.		Ebony or Black-wood.		Rosewood.		Palmyrah.		Total.
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	
	10	11	12	13	14	15	16	17	18	19	20
	C. L.	Rs. A. P.	Maunds.	Rs. A. P.	C. Ft.	Rs. A. P.	C. Ft.	Rs. A. P.	No.	Rs. A. P.	Rs. A. P.
Gumsur and Suradah...	...	.....	...	.....	...	...	...	...	...	...	2,992 12 6
Golcondah	119	37 3 0	...	.....	...	...	...	...	...	...	40 3 0
Cuddapah	1,810	664 4 0	5,550	494 0 0	...	...	...	...	38	75 0 0	50,826 7 6
Bellary	...	.....	...	.....	...	...	...	...	...	...	.....
Kurnool	14,715	3,230 15 6	...	.....	...	...	...	...	...	...	29,490 14 0
North Arcot ...	9,748	3,774 2 0	c. l. 23	399 2 6	...	...	...	...	...	...	13,996 10 8
South Arcot ...	1,306	1,020 8 6	34,200	678 0 0	...	...	...	...	...	...	2,686 4 6
Trichinopoly ...	...	.....	...	.....	...	...	...	...	...	...	573 0 6
Madura	2,128	2,214 3 11	...	.....	...	...	...	...	...	...	11,412 10 6
Tinnevelly	...	.....	...	.....	...	...	...	...	...	...	9,910 7 11
Anamallay	2,987	2,393 14 6	b. l. 1	11 0 0	...	...	...	...	...	...	3,307 11 3
Bhowany	...	.....	...	.....	68	17 0 0	...	...	...	...	2,241 0 0
Collegal	...	.....	...	.....	32	8 0 0	...	...	...	...	560 0 0
Sigur and Sathiamungalum ...	...	.....	c. l. 10	25 0 0	161	60 8 0	...	...	...	...	1,032 10 0
Mettapoliem ...	...	.....	...	.....	...	...	240	60 0 0	...	...	246 6 0
Bolumputty ...	1,189	904 12 0	{mds. 113 b. l. 50	72 4 6	...	...	...	...	...	...	3,556 5 6
Mudumallay ...	...	.....	...	.....	...	...	...	...	...	...	.....
Salem...	11,078	10,531 5 8	19,520	855 4 0	...	...	...	...	...	...	34,604 12 10
South Canara ...	No. 2,05,100	3,076 8 0	...	.....	...	...	...	...	36	72 0 0	11,521 13 10
Wynaad	...	.....	...	.....	...	...	...	...	...	...	.....
Nelambur	...	.....	...	.....	...	...	...	...	...	...	.....
Chenat Nair ...	...	.....	...	.....	...	...	...	...	...	...	.....
Total...	c. l. 45,080 No. 2,05,100	27,847 13 1	mds. 59,383 c. l. 84	2,534 11 0	261	85 8 0	240	60 0 0	74	147 0 0	1,79,000 2 6

F

Ranges.	Year.	Departmentally felled.	On License.	Total.	Free.
		C. FT.	C. FT.	C. FT.	C. FT.
Central Office...	1872-73.	...	...	...	...
Gumsur and Suradah		1,952	45,070	47,022	...
Golcondah		...	...	...	...
Cuddapah		3,305	1,02,380	1,05,685	6,680
Bellary...		...	...	...	...
Kurnool		...	2,17,720	2,17,720	21,500
North Arcot		1,233	34,780	36,013	...
South Arcot		811	9,288	10,099	7,010
Trichinopoly		...	...	...	...
Madura		7,715	44,361	52,076	...
Tinnevelly		593	6,544	7,137	...
Anamallay		10,481	322	10,803	4,368
Bhowany...		...	8,964	8,964	...
Collegal		1,967	2,240	4,207	...
Segur and Sattiamungalum		998	1,903	2,901	...
Mettapoliem		...	408	408	...
Bolumputty		...	1,998	1,998	304
Mudumallay		...	...	...	...
Salem		7,825	50,896	58,721	53,584
South Canara...		20,935	2,712	23,647	...
Wynaad		6,436	...	6,436	...
Nelambur		...	...	...	...
Chenat Nair		4,337	...	4,337	...
Total Cubic Feet...		68,588	5,29,586	5,98,174	93,446

No. 1,779.

OOTACAMUND,
15*th May* 1873.

From

MAJOR R. H. BEDDOME,
Inspector of Forests,

To

J. GROSE, Esq.,
Secretary to the Board of Revenue.

SIR,—WITH reference to the G. O., No. 322, of the 15th of March last, paragraph 3, and No. 454 of the 5th instant, I have the honour to forward the following report for transmission, through the Board, to Government:—

1. The Inspector of Forests has, in accordance with the G. O., No. 1,526, of the 8th November last, visited the following districts:—Tinnevelly, Madura, Coimbatore, Trichinopoly, Tanjore, Salem, Cuddapah, Kurnool, North Arcot, Nellumbur, South Canara, and Wynaad; and in each district he has had a personal conference with the Collector and forest officer, and, after handing over the establishments and explaining the system of operations hitherto in force, he has fully discussed contemplated operations, explaining what appeared necessary for more efficient conservancy and the proper development of forest resources. His tours have been rapid. As his object was to hand over the establishments in each district, and place all on a satisfactory footing under the new system as soon as possible, he did not, therefore, remain as long in each range as usual when on tour, or go out of his way to inspect operations in the different forests or plantations, which is generally the object of his tours.

2. *Tinnevelly.*—The Inspector was met by the Deputy-Conservator, Mr. Hayne, in the ghaut-forests of his range, and, after a short inspection of some of the forests, he proceeded to Tinnevelly and handed over the establishment, etc., to the Collector, and fully discussed working operations, etc. The Collector had introduced several innovations quite at variance with the system in force in other districts, he wished to entirely shut up large tracts of the ghaut-forests, not allowing any felling whatever, and he had also put a stop to all the revenue on firewood, even when cut for sale. After these questions had been fully discussed in all their bearings, he agreed to alter these arrangements.

3. The fuel-reserves in tank-beds, river, and channel-banks in the vicinity of Palamcottah originally commenced for railway fuel purposes are chiefly imperial, but some are necessarily retained for local purposes; it is necessary to separate the two, and, if the Forest Overseer is employed upon both, a portion of his salary should be debited to Local Funds. These plantations, which are chiefly of the Umbrella thorn

and other Acacias, promise to be a complete success, but it is necessary that precautions should be taken to exclude cattle. A map should be prepared showing the situation, area, and contents of each, and clearly marking in different colours those that are imperial and those that are local.

4. The Collector, Mr. Puckle, takes a great interest in the preservation of the ghaut-forests in connection with the irrigation of his district, and the question is one of the greatest importance.

5. There are many tracts of forests in the possession of Zemindars and others, and the boundaries of these and the boundaries between the Government and the Travancore Sirkar forests are not clearly laid down. A careful survey and demarcation of all the forests in this district is much required.

6. Mr. Hayne, the forest officer, is pains-taking and attentive; he might be called upon to pass in surveying, as a knowledge of this is much required in his work.

7. *Madura.*—The Deputy-Conservator met the Inspector at Madura, but the Collector was absent at the south of the Cumbum valley. After visiting some of the forests with the forest officer, the Inspector met the Collector at Periakolum, handed over the range, and explained and discussed contemplated operations, etc.

8. There is nothing particular to report in this range. The forest officer, Mr. Williams, is well up in his work, and is a good surveyor. A proper demarcation and survey of all Government forests is a great want.

9. *Coimbatore.*—All the forests in this district were handed over to the Collector, and operations, etc., explained and discussed.

10. It was proposed that the forests on the eastern slopes of the Nilgiris, all the Bhowany forests and the Bolamputty forests should be formed into a separate range under one officer to be worked under the orders of the Collector of this district. This new range is a very important one, now that the railway from Coimbatore to Mettapolliem has been finished. These arrangements have been sanctioned in the G. O., No. 328, of 15th March 1873.

11. Some of the most valuable forests in the Presidency are in this Collectorate, *i.e.*, the Anamallay forests, fifty miles south of Coimbatore, and the Collegal, Bhowany, and Suttiamungalum forests and Sandalwood tracts. All to the north, besides the new range just mentioned and the Sholaykurray forests, it is impossible that the Collector can visit or supervise operations in many of these tracts. At present he has two very good forest officers, *i.e.*, Colonel Morgan and Mr. Douglas, who both thoroughly understand their work.

12. *Trichinopoly.*—The plantations in this district were handed over to the Collector. Mr. Morgan, the young officer in charge, has been constantly sick, and it is feared that no very great progress towards forming good permanent railway fuel plantations has yet been made. Planting must be undertaken on a larger scale, and cattle must be excluded from the plantations before satisfactory results can be attained. The great rise in the price of coal has given increased importance to this work, and it is very important that it should receive special attention from the Collector and his Assistants. Colonel Morgan calculates that wood-fuel can be

supplied to the Great Southern India line (from the forests above Erode) as far as Caroor, but beyond that point its price would rise so much that it would not be taken by the railway, unless coal rose to Rs. 30 per ton. The supply of fuel, therefore, below Caroor devolves upon Trichinopoly and Tanjore, and the paduga lands all along the banks of the Cauvery and Coleroon from above Caroor to some miles below Trichinopoly (where it all becomes private property) are, if properly treated, admirably adapted for the growth of Babool, other Acacias, and the *Cassia florida*, which are our best fuel-trees. They are, however, infested with herds of semi-wild cattle, and little can be attempted with any chance of success, unless these are excluded by the Revenue authorities by fencing or other means. The question is one of very great importance, and should receive early attention by the Collectors of Trichinopoly and Tanjore in consultation with the Agent of the Great Southern India Railway.

13. *Tanjore.*—A small commencement has been made with plantations in this district, and everything was handed over to the Collector. A 1st-class Overseer, on Rs. 130, with a writer and staff had, been appointed during the Inspector's absence; but these were quite uncalled for, and their services were dispensed with. A few gardeners or maistries, at 8 or 10 Rs. each monthly, is all that is required at least for the present, and these should be under the supervision of the forest officer of Trichinopoly.

14. The Collector of this district quitted it for good almost immediately after the Inspector had handed over and explained what was required, etc.

15. *Salem.*—The establishments in this district were handed over to the Collector. Mr. Brougham, the Acting Deputy-Conservator, is thoroughly up to his work, and is a good surveyor, and everything is in good working order. The system of railway fuel-reserves is nearly complete in this range, and it is believed that all the required tracts have been handed over to the department. A good map of them is required.

16. *Cuddapah.*—The establishment was handed over to the Collector, and forest matters and future operations, etc., fully discussed.

17. The Red Sanders has been yielding an enormous revenue in this district, but the special department has hitherto only had charge of the eastern or Codoor side of the chain of mountains running from Tripetty in a north-west direction up to Cuddapah. Large tracts of this tree are also found on the western or Rachotee side of the same range, and the Collector agreed that it was highly desirable that all these should also be placed under the Forest Department. The Inspector has not yet heard if this has been done, but if not, he trusts that it may receive early attention.

18. Mr. Yarde, the forest officer, is well up to his work, but he might be required to pass in surveying.

19. The system of railway fuel-reserves has not been quite completed in this range, as some of the tracts have not yet been handed over to the department, or had not at the date of the Inspector's visit. It is difficult to understand what has been the cause of the delay, and the subject should receive immediate attention.

20. The Red Sanders plantation was visited by the Inspector; it is a great success, and will, it is believed, pay well; the planting of this tree should, if possible, be extended.

21. The railway fuel plantations at Gooty, Camalapore, Reddapilly, etc., on open bare land and poor soil are not at all promising, and it is feared that they will never pay; the rain-fall is not sufficient or rather not continuous enough to make tree growing remunerative. The trees reared during the rainy months are mostly killed off by the drought and heat during the first five months of the year, and the floods in October and November are sometimes so great and sudden that acres of young plants are washed right away. The expenditure on these plantations has, from some time since, been reduced to a minimum; anything like regular planting out in pits or trenches will not, it is feared, ever pay, and should not be pursued, except as a supplementary measure. Advantage must be taken of wet weather to plough and sow broad-cast, and this should be persisted in until a good growth is obtained. This plan has been very successful in several spots, and it is inexpensive, and should be persisted in, even if constant failures should be reported. In any case, the fuel-reserves (in all cases natural jungles), not the plantations, must be looked to as a source of supply for locomotive fuel, and their up-keep must receive careful attention.

22. *Kurnool.*—The Inspector met the Collector and the Forest Assistant at Kurnool, and conservancy arrangements, etc., were fully discussed.

23. Smuggling is very rife in this district, and the Assistant reported that wholesale theft went on most systematically in some of the Government tracts abutting on private forests, and that he was quite unable to check it. The possession of a few acres of jungle or forest apparently enables any man to carry on a large timber-trade: he issues his licenses, and the possessors of these enter the Government forests indiscriminately, taking care, however, generally to do so at night, or when they know that none of the forest establishment are near. Nothing can be done, unless they are actually caught in the act of felling, and, even then, they are seldom punished (the timber only being confiscated) and the real instigator can always secure himself by saying that his licenses are only to fell in his private jungle, and that it is not his fault if the wood-cutters go by mistake beyond his limits. The Collector stated that he would endeavour to put a stop to this systematic smuggling, and it appears that since the Inspector's visit he issued a Circular upon this and other points. This Circular has, however, been entirely cancelled by the Board of Revenue. It was not drawn up by the Inspector, or even submitted for his approval or remarks; in fact, he never even saw it or heard of its existence, until it was forwarded to him by the Board.

24. The forests of the Nullaymallay mountains are a very valuable tract, and there are few or no communal rights in them. They are by far the finest tract on the eastern side of the Presidency, and they yield a very considerable revenue to Government; their importance at present, however, is much less than many inferior forests in districts to the south, such as Cuddapah, Arcot, and Salem, as no railway runs near them. At some future date, their value may become very

greatly enhanced, and this should be borne in mind; for the present, unless tracts are given up for cultivation (generally only an excuse for entering on a trade in timber and smuggling), their situation and the unhealthiness of the climate are sufficient to conserve them.

25. Mr. Boileau, the young Forest Assistant, is very young and inexperienced, and will want constant supervision.

26. The Collector of this district quitted it for good just after the Inspector had handed over the establishment, and gone fully into working arrangements, etc.

27. *North Arcot.*—The Inspector met the then Acting Collector at his head-quarters at Chittoor, and held a forest conference with him and his Forest Assistant, and there was ample evidence to show that the conservancy arrangements in this important district so near the Presidency and traversed by two railways was in a perfect chaos, — facts which have, on several occasions during the last four years, been brought to the notice of Government and the Board by the Conservator of Forests.

28. The Forest Assistant pointed out—

Firstly.—That some of the finest forests in the district situated in the Goriattum and Chendragherry Taluqs had never been handed over to the Special Department, though they were imperial forests to all intents and purposes; that these tracts were under no proper management or supervision; and that the revenue annually lost to Government was very great, and the openings given to smuggling such that it rendered the proper conservancy of the forests under him a question of the greatest difficulty, if not impossible.

Secondly.—That the system of granting *free passes* to ryots when felling timber for agricultural purposes had never been introduced into this district (though in force in the rest of the Presidency), as the Collector had been opposed to it; ryots, therefore, cut timber when and how they liked without any reference to quantity, and under no control or supervision which rendered all attempts to check smuggling quite futile.

Thirdly.—That firewood was allowed to be cut *for sale* throughout the district without any charge for seigniorage, though this was quite opposed to the orders of Government, and the system in force in other districts; the monthly supply of firewood to the town of Vellore alone represented in its seigniorage a very large sum.

Fourthly.—That the system of railway fuel-reserves had not been finally settled, as the reserve of 6 square miles in the Goriattum Taluq marked out by one of the Collector's Head Assistants, and afterwards demarcated, had never yet been handed over to the department. Mr. Whiteside, the Acting Collector (since confirmed), stated that he had been alternately in charge of the district with Mr. Robinson for some time past, and that he was aware that conservancy arrangements were in anything but a satisfactory state; that he himself was much in favour of conservancy, but that all the arrangements he had made in this direction had always been at once upset by Mr. Robinson, the Collector, on his return. He agreed with the Inspector that the Goriattum and Chendragherry forests should be

placed under the Special Department, and that the Amboor tract ought to be given up as a railway fuel-reserve, remarking that, when he was Acting Collector, he had himself caused it to be marked out by his Head Assistant, and the question of grazing rights, etc., carefully inquired into, but that the arrangements had subsequently been set aside during his absence on the report of a Gumastah or some very subordinate officer; and he also agreed that all firewood cut for sale should pay the usual seigniorage, stating, at the same time, that it had lately come to his notice that even the Engine Drivers were carrying on a fuel-trade with Madras on their own account as they were able to obtain fuel for export from the district at a very cheap rate, as it paid no seigniorage.

29. The Inspector drew up a memorandum on all these points, and the Acting Collector promised to endeavour to obtain the sanction of the Board to carry out the arrangements that he thought necessary; he has since requested the Board to obtain the sanction of Government for the transfer of the Goriattum and Chendragherry forests to the Special Department to enable him to introduce an improved system of conservancy, and to check the smuggling of wood and fuel which he states goes on to an enormous extent. This was referred to the Inspector of Forests, *vide* Proceedings of the Board, No. 171, dated 7th February last, and the Inspector's report is recorded in the Board's Proceedings, No. 626, of the 23rd April last, upon which the Board again refer the question to the head of the Collectorate in North Arcot for further report remarking that no change which extinguishes any communal rights can be allowed. Mr. Whiteside, the Collector, is unfortunately absent in England, and the question, therefore, comes before a man quite new to the district, and who probably knows nothing of the subject; it may, however, be mentioned that no extinction of communal rights was ever contemplated. This is how the matter stands at present with reference to the transfer of the forests. But of what may or may not have been done with reference to handing over the fuel-reserve or to introducing the sanctioned seigniorage upon firewood or the *free pass* system for timber cut by ryots the Inspector is quite in the dark.

30. The Inspector wishes to draw the attention of Government to the following facts to prove that his department is not to blame for the very unsatisfactory state of conservancy in this district.

31. In November 1868, the Conservator endeavoured to get the Goriattum forests placed under his department, and the Board of Revenue agreed with him that they should be handed over, *vide* Proceedings of the Board, No. 7,709, of the 28th October 1868, recorded in the Government Order, No. 2,909, dated 20th November 1868.

In G. O., No. 213, dated 25th January 1869, Government sanctioned an establishment for this purpose.

In Proceedings of the Board, No. 7,679, dated 15th October 1869, the Collector was ordered to carry out the transfer of these forests.

In G. O., No. 441, dated 4th April 1870, the question of the transfer was ordered to lie over until the Board's Proceedings, dated 18th January 1870, No. 353, were disposed of.

32. In April 1871, the Conservator requested Government to transfer the Chendragherry forests, *vide* G. O., No. 769, of the 3rd May 1871. Government were not disposed to pass orders on the subject until the question of forest administration was disposed of.

33. In May 1871, Mr. Whiteside, the Acting Collector, deputed his Head Assistant, in conjunction with the forest officer, to select and mark out tracts for the railway fuel-reserves. This was most carefully done, and the largest and finest tract selected was one in the Amboor jungles, which measured six square miles. This was surrounded by many square miles of open forest and grazing ground, and it was handed over to the department, *vide* Proceedings of the Board, No. 1,943, dated 10th May 1871. The Board of Revenue afterwards remarked that it did not appear that sufficient inquiry had been made as to whether there were any communal or other rights. Government, however, remarked that it appeared that the village authorities had everywhere present, and that no complaints had been recorded, (*vide* G. O., No. 954, dated 30th May 1871). Subsequently the Forest Department took over charge of this tract and demarcated it with stones and commenced fencing it in, and the Conservator of Forests reported that the railway fuel-reserve arrangements had been completed in this district, and this received the sanction of Government (*vide* G. O., No. 971, dated 1st June 1871). These arrangements were afterwards upset by the Collector as explained by the Acting Collector.

34. Casuarina planting in the sandy beds of rivers and such like tracts has been a most complete success in this district, and will be very profitable: trees which have only cost up to date about 1½ Annas could now be sold at 1½ Rs. each, although they are scarcely a third towards maturity. These plantations should be extended wherever it is possible. A Sandalwood plantation should be commenced on the Balaghaut where the tree grows well. All the Red Sanders tracts in the district should be worked under one and the same system by the forest officer. All these subjects were fully explained to the Collector by the Inspector.

35. Mr. Sheffield, the forest officer, is an excellent forester, and thoroughly understands his work; he has, however, had no chance of getting this district into good working order, as he has been frustrated in most of his attempts in this direction, and ever since he has been in the district the orders he has received and the arrangements that have been sanctioned one day have been liable to be cancelled the next; he very properly complains that conservancy has been impossible under these conditions. A knowledge of surveying is very necessary, and Mr. Sheffield might be called upon to pass in this.

36. *South Canara.*—The Inspector met the Collector and his Forest Assistant at Mangalore, and forest conservancy, future operations, etc., were fully discussed.

37. There is not much calling for special report in this range. The management of the catechu jungles in the plains of the Condapore Taluq, and the cardamom tracts in the ghaut-forests require the Collector's attention and a small Sandalwood plantation might be commenced above ghauts in the Condapore Taluq; the Collector was furnished with a memorandum on these subjects. A suitable timber

depôt at Mangalore is a desideratum; this subject was also discussed, and the Collector promised to give it his attention.

38. *Malabar, Nellumbore Plantations, Wynaad, Mudumallay, etc.*—The Inspector visited the Conolly Teak plantations at Nellumbore, and he also went through a portion of the Wynaad forest with the Wynaad forest officer; and he met the Collector at Calicut, and handed over the different establishments to him. There is nothing special to report in this range. The Collector takes a great interest in the Nellumbore Teak plantations, and he can easily look after these and supervise operations; but it will be difficult for him to pay attention to operations in, or ever visit the Wynaad Teak belt, which is on the confines of Mysore. He also stated that it was impossible for him to take charge of, or ever visit Mudumallay, although this is a continuation of the Wynaad Teak belt and in the Malabar District, and he advised that this should be placed under the Collector of Coimbatore or the Commissioner of the Nilgiris; but it is not clear how this can be managed when the tract in question is not in their districts, and they cannot well pass orders or carry them into effect if passed beyond their districts; it, therefore, remains an open question as to what Collectorate the Mudumallay forests should be under. He was anxious to have the whole of the Annamallay forests placed under him as the leased portion of the Teak forest is in Malabar. These forests, however, have always been under the Collector of Coimbatore. The Government portion of the Teak tract is in the Coimbatore Collectorate, and all the rest of the hills and forests which comprise a very large area running right away east to their junction with the Pulnies are also in that Collectorate, and every portion is much more accessible from Coimbatore; the Inspector, therefore, cannot recommend this transfer, and it would never answer to place different portions of a regular Teak forests like that of the Anamallays under two Collectorates.

39. The forest officer of the Wynaad range, Mr. Peet, is young, and with little experience of the country and natives, and will require much supervision.

40. The Inspector is of opinion that the new system of placing the department in each district under the Revenue authorities will answer well, and be, in some ways, an improvement upon the old system, if a trained Forest Department is kept up under Collectors, and if the whole is under the direction of the Inspector, subject, of course, to the control of the Board and Government; he would, however, deprecate any tendency to do away with a trained department. Collectors have such very different views on the subject of conservancy, and many care so little about it, and will never run the risk of fever by visiting the forests, and are so constantly changing, a Collectorate perhaps being in four or five different hands during one year, that much confusion must be the result if the whole is not under some general control and management. The Inspector has been ordered to go tours round the ranges as heretofore to inspect the work and explain contemplated operations, etc., to the Collectors; but many of the Collectors do not report to him how matters are going on in their districts, or inform him of any changes, etc., carried out; in fact, he is left quite in the dark as to what is going on in many of the districts, and he may remain so from the time of one annual visit till the next.

41. It is a great advantage in many ways that open forest tracts like those in Salem, Cuddapah, etc., in which there are communal rights, etc., should be under the Revenue authorities, and most of these can be well supervised by Collectors. It is different, however, with our forests proper, such as the Anamallays, Mudumallay, Wynaad, and most hill forests, and with our plantations; Collectors can scarcely attend to these or seldom or even visit them, and they should receive much of the attention of the Inspector, or serious mistakes will be occurring.

42. In G. O., No. 322, dated 15th March last, Government have ruled that the Overseer grade is to be entirely under Collectors in each district, and that these subordinates are to be obtained in the districts in which they are employed and to be eligible for employment in other departments. This, the Inspector thinks, is a retrograde movement; a man may be a forester one day and an Accountant or something else the next, and he will not probably remain longer in forest employ than he can possibly help; in fact, anything like a trained department will soon cease to exist, and a Collector may put in any one he likes, however ignorant to the most important post. Much depends upon the efficiency and departmental knowledge of the Head Overseer or Forester in a range, and it will be impossible for our officers to carry on anything like systematic forestry, or to be responsible for the state of their plantations or reserves with a class of subordinates that might shortly be attempting to carry on forest work under this order. Hitherto, Overseers have been generally selected by the Conservator or one or other of his senior officers with due regard to their proclivities, constitution, knowledge of languages, surveying, etc., etc., and they have then been trained for some months in different ranges or plantations, where they were most likely to learn what was most required of them. Many men have entered and undergone this training without any pay when they knew it was to lead to an appointment. The senior Overseers in some of our districts require to have a very thorough knowledge of forestry and planting, and when such appointments fall vacant the best qualified men in other districts should be promoted to them. Again, many of our forests are so unhealthy that no man can stand a long continued residence in them, and changes and transfers are necessary between different districts; it is not clear how this can be managed except by the Inspector.

I have the honour to be,
Sir,
Your most obedient servant.

(Signed) R. H. BEDDOME, Major,
Inspector of Forests.

No. 2,148.

OFFICE OF CONSERVATOR OF FORESTS,
CHETTEEPORE, 11*th September* 1873.

From

C. G. MASTER, ESQ.,
Collector and Conservator of Forests, Ganjam,

To

J. GROSE, ESQ.,
Secretary to the Board of Revenue, Madras.

SIR,—With reference to the Board's Proceedings, Forest No. 21, dated 8th May 1873, I have the honour to submit my report on the Gumsur and Surada forests in this district for the past official year 1872-73, accompanied by the Forest Overseer's report and its enclosures.

2. *Statement A (in printed Form).*—The actual receipts from all sources during the year amounted to Rupees 3,439-7-0, and the value of timber supplied to the Public Works Department was Rupees 238-4-0; thus making a total of Rupees 3,677-11-0 against Rupees 4,310 of 1871-72, inclusive of Rupees 426, being the value of timber supplied to Department Public Works, and against Rupees 4,500 of the Budget-estimate, exclusive of the value of timber supplied to Department Public Works. The cause of this decrease is chiefly attributable to the Zemindars of Coradah and Ranabah having diverted the trade to their own forests by under-selling Government. Only a small quantity of timber was used by the Public Works Department in consequence of the Berhampore Range Officer not having drawn his supply from Government stores, on which subject the District Engineer will be addressed.

3. *Statements B and C (in printed Forms).*—The expenditure under "A, Conservancy and Working" and "B, Establishment and Contingencies" amounted, respectively, to Rs. 518-9-0 and Rupees 2,651-15-6, making a total of Rupees 3,200-6-6 against Rupees 3,138 of 1871-72 and against the Budget provision of Rupees 3,250.

4. *Statement D (in printed Form).*—At the beginning of October 1872, when the Forest Department was taken charge of by the Revenue Department, there was a cash balance of Rupees 413-10-3 in the Overseer's hands out of the advance made for conservancy and working charges, and an outstanding advance of Rupees 5. These amounts have been recovered and credited in the Treasury Accounts. A permanent advance fund of 100 Rupees has been made to the Overseer to enable him to meet the conservancy and working charges, and the advance of 30 Rupees formerly made to him for petty contingent expenses has been recovered and credited in the Treasury Account.

5. Bills for sums expended on conservancy and working charges are submitted at the close of the month; and as there was no balance unaccounted for on the close of the year under report, the memorandum called for in paragraph 11 of the Board's Proceedings, dated the 12th February 1873, has not been sent as reported in my three letters marginally noted.

No. 1,225, dated 14th June 1873.
" 1,608, " 24th July "
" 1,802, " 11th Aug. "

6. *Statement E (in printed Form).*—The statement given below shows the balance in quantity and value of timber on hand on the 1st April 1872, quantity and value felled, sold, and

supplied to Department Public Works during the year, and the balance on hand on the 31st March 1873:—

	Forest.		Depôts.		Total.	
	Cubic Feet.	Value.	Cubic Feet.	Value.	Cubic Feet.	Value.
		Rs.		Rs.		Rs.
Balance on the 31st March 1872	1,680	236	2,378	595	4,058	831
Felled or received into store during the year ...	1,953	236	2,255	694	4,208	930
Total ..	3,633	472	4,633	1,289	8,266	1,761
Deduct—						
Sent to depôt or sold to public and supplied to Public Works Department	2,255	285	2,185	666	4,440	951
Balance on the 31st March 1873	1,378	187	2,448	623	3,826	810

7. The statements called for in paragraph 25 of the G. O., dated 16th April 1872, No. 609, prepared according to the instructions contained in paragraphs 24 to 26, are herewith sent. A memorandum, showing the cost of felling as distinguished from that of conveyance of timber to depôt, will be sent immediately on its receipt from the Overseer, who has been addressed on the subject.

8. The subjects alluded to in paragraphs 3 to 7 and 17 to 19 of the Overseer's report will receive attention. To re-place the buffaloes which have died during the year, as reported in paragraphs 8 and 9 of the Overseer's letter, I have made provision in the Forest Budget for 1874-75, sent with my letter of the 29th August 1873, No. 1,488.

9. I have had no opportunity of visiting the plantation referred to in paragraph 11 of the Overseer's report.

10. In conclusion, I have to express my regret at my inability to report upon the forest administration of 1872-73 as completely as I could wish. I have had neither opportunity nor time to visit the different forests, or to familiarize myself with the mode of their working.

I have the honor to be,
Sir.
Your most obedient Servant,

(Signed) C. G. MASTER,
Collector of Ganjam.

[Enclosure 1.]

Forest Office,
Russelcondah, 19*th August* 1873.

From

Mr. T. G. FREEMAN MacCALLY,
Overseer of Forests, Gumsur,

To

C. G. MASTER, Esq.,
Collector and Conservator of Forests.

Sir,—I have the honour to forward my Annual Report and Accounts for the official year 1872-73.

2. During the year the greater portion of the forests of my Range have been occasionally visited, except the most remote portions bordering on the Newaguddah and Duspullah frontiers,

which I was prevented from ill-health. Every attention had been paid to their conservancy as far as practicable, compatible with the means at my disposal.

3. All illicit felling and usurping of forest lands for cultivation, wherever detected, had been reported and the parties dealt with magisterially.

4. While on my tours through the Ootergodotole Mootah of my Range between Jagannauth-prasaud and Kookloobah and Balasye, I observed many old clearances in the forests between every village which had settled in them, besides the clearances of forests around the villages, with their wet and dry cultivation. These gaps of clearances in the forests are situated at a distance of 1½ or 2 miles from each other between the respective villages in these forests.

5. On examining these grounds, I found them to be old bunjer lands which are called in the southern ranges "koomery." Many valuable Sal and other reserved and unreserved kinds of wood had been destroyed by this kind of cultivation. The dried trees, many of them still standing on the grounds, are unmistakable evidences of their girt being from 3 to 4 and 5 feet, exclusive of the charred remains of a great number under decay. From personal observation, I should say that one-half of these valuable forests have underwent this sort of cultivation, and the other remains under conservancy. As these clearances or destruction of forests appeared to be the work of times passed, the inhabitants of every village I passed through were warned of the consequence of such felling, and advised to utilize the old grounds as much as possible, and that no new grounds could be granted them without sanction; and if they were found guilty of felling forests under bunjer clearances or any other place, that they would be punished.

6. A few new clearances were discovered by me in the Pouchogodo and Onagherry Mootahs between Gullery, Doorgaprasaud, Doorpinghia, and Mahagooda, which had been felled by parties belonging to villages situated in these forests. They have been prosecuted for mischief and punished.

7. All the applications for forest sites of land required for cultivation on "Cowle," referred to this department by the Tahsildar of Gumsur, were duly examined by me and reported upon on my returning the Durkhasts, conveying assent or dissent, agreeably to the quality of the wood discovered on them.

8. During the year cattle-disease has been prevalent through the taluq; many cattle died, and four of the buffaloes of this department fell victims to it. One died on the 15th May 1872, one on the 23rd, one on the 24th, and one on the 27th November 1872, leaving only three, which, although affected by it, had recovered.

9. The eight buffaloes originally attached to this department have been by casualties lowered to three, which has completely crippled it. To re-place the cattle attempts have been made but no healthy animals were procurable.

10. Cattle-disease is still prevalent, and, I think, it will never be eradicated if the owners of the cattle do not bury the deceased animals. At present the carcasses vitiate the atmosphere, and the localities in which they have died or been dragged to the pasturage of cattle is thus affected by the effluvia of the disease. Many places I have passed through, I have observed bones of cattle lying out of the villages and topes where the cattle had died; but the greatest quantities were to be seen at Goelpoor, Kanacooty, and Sunkoor villages, south of Manintara, where the topes and ground side of the villages were covered with them, indicating the sites where the cattle had died or had been dragged to, and also that the disease had prevailed there to a fearful extent. It would appear that the hides and horns of the animals are removed immediately after death and sold, and the remains of the carcasses left unburied. Although the orders published in the District Gazette of 2nd July 1870, page 332, prohibit the practice, they appear to be very little attended to, and will require some compulsory measures to enforce them in this taluq, as the Natives appear to be very indifferent on the subject, notwithstanding their great annual losses of cattle.

11. My small plantation contains the following trees :—

	No.
Teak	159
Jonesia Ashoka...	32
Sumach	8
Acacia Arabica	4
Inga dulcis	5
Sapindus emarginatus	5
Mango	20
Jack	15
Poinciana Regia	1

A number of trees which had died during the year will be re-placed from seed saplings as soon as they have germinated. One thousand teak seeds were sown.

12. 2,713 cart-loads of unreserved kinds of wood = 54,260 cubic feet were permitted to be felled and removed from the forests, free of taxation, for the re-building of 322 ryots' houses burnt during the year ; the seigniorage of this wood, if it had been realized, would amount to Rupees 1,356½.

13. 107 cart-loads of reserved and unreserved wood = 1,952·677 cubic feet were felled and removed from the forests by this department during the year ; a greater quantity of wood was found unnecessary, there being little demand.

14. 69 logs and one cart-load poles of reserved and unreserved wood = 1,218·667 cubic feet were sold by this department to private individuals for Rupees 427-6-0.

15. The Department Public Works, No. 3 Range, Russelcondah, was supplied with 54 logs of wood - 966·851 cubic feet, at a cost of Rupees 238-4-0. No demands were received from the Berhampore Range or the Engineer Officer at Vizagapatam, consequently the wood in depôt has only been maintained consistent with the demand.

16. 2,253½ cart-loads of reserved and unreserved kinds of wood = 45,070 cubic feet have been felled and removed from the forests on the voucher and license system, the seigniorage of which amounts to Rupees 2,908-4-0, and 541 cart-loads of firewood=236 tons at Rs. 84-8-6, making a total of collections of Rs. 2,992-12-6.

17. All the rafts of wood that had been grounded in various localities in the bed of the Mahanuddi river of Gumsur from the want of water at the close of the monsoons in 1871 have all been floated down during the few freshes in this river after the inundations of 1872 ; the owners of these rafts were not disposed to take out any more licenses for this season, having suffered severe losses from disappointment during the past. The Zemindars of Ranabah and Coradah, carrying on an extensive traffic in wood in their forests, which are dovetailed and surrounded by the Government forests, their seigniorage being below that of the Government forests, has drawn away many of our license-dealers to their forests, causing a great falling off in our seigniorage collections ; the anticipated revenue could not be realized. Originally, the Ranabah Zemindar speculated in wood, but now the Coradah Rajah, with two Agents, have begun this speculation. Two Zemindars under-rating their seigniorage below that of the Government forests would naturally result in drawing to them all our license-dealers, causing thus a failure of revenue in the Government forests. The egress and ingress to the Zemindari being through the Government forests causes great annoyance, but the right of way cannot be stopped. More supervision is necessary in the Government forests bordering on these Zemindaris, so as to prevent the Zemindari license-holders taking the advantage of surreptitiously felling in the Government forests bordering on the Zemindaris, and to prevent damages to the Government forests by the carts to and from the Zemindaris through them.

18. Thirty-nine persons were prosecuted for mischief, illegally felling, burning, and destroying of Government forests and usurping the grounds for cultivation, and they were sentenced by the Sub-Magistrate of Gumsur as follows:—

1	Person	fined	Rupees	60.
3	Persons	do. at	do.	10 each.
21	Do.	do. at	do.	5 do.
14	Do.	do. at	do.	3 do.

19. A few of the above individuals gladly paid up their fines having escaped the jail by their doing so. Others, who returned to their homes, have since re-cultivated the grounds for which they had been originally fined, in the consideration that by the payment of the fines they had thus redeemed the ground. These individuals will be again prosecuted, and if a few cases of the kind are dealt with severity, it will soon be put a stop to.

20. The health of myself and establishment has been very indifferent. One and all have suffered from fever occasionally, and I have been most seriously prostrated twice during August 1872 and February 1873, and have enjoyed very delicate health since.

1 Set, 5 Statements (A, B, C, D, and E.)
1 Set, 5 do (A, B, C, D, and E.) in duplicate, with eight vouchers attached.

21. I beg to append ten Statements of accounts in two sets, marked A, B, C, D, E, with eight vouchers attached as per margin.

22. The revenue, I regret to say, has not amounted to what was originally anticipated from reasons above stated, and the demands from the Department of Public Works being very small.

23. The total amount of receipts has been Rs. 3,439-7-0, and the value of timber supplied the Department of Public Works Rs. 238-4-0, makes a total revenue of Rupees 3,677-11-0; deducting from this sum the expenditure of Rupees 3,200-6-6 leaves a balance of Rs. 477-4-6 in favour of Government, and the value of timber in hand Rs. 810-8-0 makes a total of financial results of Rs. 1,287-12-6. Statement attached.

FINANCIAL RESULTS.

Receipts.

	Rs.	A.	P.			
Sale of timber at depôts	427	6	0			
Sale of timber removed by purchasers	2,992	12	6			
Sale of confiscated timber	19	4	6			
				3,439	7	0
Value of timber supplied Department Public Works, No. 3 Range				238	4	0
Total, Receipts...				3,677	11	0

Expenditure.

	Rs.	A.	P.			
Conservancy and Working...	548	7	0			
Establishment	2,544	0	0			
Office Contingencies	43	15	6			
				3,136	6	6
Balance in favour of Government...				541	4	6
Value of timber on hand on the 31st March 1873				810	8	0
Total, Financial Results...				1,351	12	6

(Signed) T. G. F. MacCALLY,
Overseer of Forest, Gumsur.

961.

VIZAGAPATAM, 1st *July* 1873.

From

J. R. DANIEL, ESQ.,
Acting Collector of Vizagapatam,

To

J. GROSE, ESQ.,
Secretary to the Board of Revenue, Madras.

SIR,—Referring to the Proceedings of the Board of Revenue, No. 746, dated 8th May last, I have the honour to submit herewith copy of a report on the administration of the Forest Department for 1872-73, furnished by the Principal Assistant under whose management the Golgondah forests are placed.

2. The receipts during the year amounted only to Rupees 40-3-0 against Rupees 255-9-0 of 1871-72, and the expenditure to Rupees 775-12-0 against Rupees 756-12-2 of 1871-72.

I have the honour to be,
Sir,
Your most obedient servant,

(Signed) J. R. DANIEL,
Acting Collector.

[ENCLOSURE 1.]

PRINCIPAL ASSISTANT COLLECTOR'S OFFICE,
NARSIPATAM, 3rd *June* 1873.

No. 165.

From

A. CRUICKSHANK, ESQ.,
Principal Assistant Collector of Vizagapatam

To

J. R. DANIEL, ESQ.,
Acting Collector of Vizagapatam.

SIR,—With reference to the note appended to the Proceedings of the Board of Revenue, dated the 8th May 1873, No. 746, Forest No. 21, I have the honour to inform you that the amount realized during the year 1872-73 for timber and bamboos sold in the Golgondah forests was only 40 Rupees 3 Annas. The amount realized in the preceding year was 255 Rupees 9 Annas. It is difficult to account for so great a decrease. The reasons assigned by the Sub-Overseer are want of cattle and want of money on the part of the ryots.

3. The only form of those prescribed in the G. O., dated the 16th April 1872, No. 609, which is applicable to the Golgondah forests, is Form E, which is herewith enclosed.

I have the honour to be,
Sir,
Your most obedient servant,

(Signed) A. CRUICKSHANK,
Principal Assistant Collector.

No. 117.

CUDDAPAH COLLECTOR'S OFFICE,
CIRCUIT AT WANIPEUTA, 18*th July* 1873.

From

W. D. HORSLEY, Esq.,
Collector of Cuddapah,

To

J. GROSE, Esq.,
Secretary to the Board of Revenue, Madras.

Vide Board's Proceedings, dated 8th May 1873, No. 746, Forest No. 21.

SIR,—I have the honour to forward my report* of the administration of the forests in this district for 1872-73.

2. The season has been, on the whole, favourable for planting operations, but it has not been quite so beneficial as might have been expected from the extra rain-fall. The rain fell heavily, but there were long intervals between the showers. The young plants in the nurseries and plantations did not thrive under this drenching process, while the older trees in the fuel reserves were benefited by the rain. The Deputy-Conservator complains that the greater part of the planting season was lost owing to want of funds; I am not aware how this occurred.

3. The plantations and fuel reserves are all in the Pullampett Taluq, except the plantation at Camalapoor. The Pullampett Taluq is naturally the best adapted for forest operations of this description, and, indeed, I do not know that it would be possible to carry on the work in any other locality near the railway in this district.

4. There are at present only three patches of forest which have been fenced in as Railway fuel reserves. Their extent is not accurately known, as they have not been measured, but they are estimated at acres 4,133. It is absolutely necessary that more forest should be enclosed, and this can be done without interfering with communal rights. If something is not done in this way, the supply of fuel will not keep pace with the demand from the railway especially. The work is inexpensive, requiring only a small outlay to plant an Aloe-fence, while the improvement within the portion enclosed is very rapid; this is readily observed when the condition of the trees and underwood in the reserves is compared with the open forest beyond the fences. During the year, I have endeavoured to add to the reserves two tracts estimated to contain acres 6,672, but as yet these portions of forest are not enclosed. In one case, the land is claimed by a shrotriemdar; and in the other, roads through the forest to the hills render it difficult to enclose. The cost of watching and fencing the reserves has amounted to Rupees 606, but this sum includes Rupees 102, the travelling allowance of the officers when employed visiting these works. I am satisfied that only by enclosing forests can we ever hope to keep up the supply of fuel. What we are doing now in this way will not enable us to meet the demands which will be made when the open forest has been sufficiently cleared by the railway fuel contractors, who are rapidly denuding the country of trees.

5. There are altogether five plantations now at work, occupying acres 1,731. Waste land of good soil is now very scarce. The only land available for these plantations is wretchedly poor, and only the most hardy plants can exist at all in such soil. The system of sowing seeds in pits and channels and allowing the plants to shift for themselves is a mistake. If there was any scrub jungle on the ground, they might thrive, but exposed to the sun in a coarse, stony soil, and dependent entirely on rain, it is unreasonable to expect that even a small percentage of the seeds which germinate should become plants of any strength. In each plantation there is a nursery, where the young plants are watered and tended until they have acquired sufficient strength to be

planted out, when they can manage for themselves. Such plants generally do well. But both this and the channel and pit work are slow and expensive. Thus it will continue to be until the ground is sufficiently covered with trees to aid the growth of seedlings. During the past year the working charges and establishment on these plantations of acres 1,700 and odd cost Rupees 8,854-11-2.* These expenses cannot be reduced, and the work is carried on as economically as it possibly can be. But the system is, I am sure, a bad one. These waste lands when first taken up should have been well ploughed and sown broadcast with Babul and other seeds producing hardy, indigenous trees, without particular reference to the value of their wood. Beyond a small outlay in fencing in the ground, no heavy expenses would be incurred for some time. The trees would require to be thinned occasionally, and the sale of the wood would make some return for the outlay, while the standing trees would help the growth of young plants. Unprofitable though the undertaking now is, it will not do to interfere with existing plantations. They must be kept up, but ground now unoccupied with plants must be ploughed and sown broadcast. The Red Sanders plantation at Codoor is doing well, but rearing valuable trees and paying dearly for experiments is not what I understand the Government to require. Red Sanders and Sandalwood fetch a good price in the market; but they are too valuable for fuel, and it is fuel which is wanted at present. When we have a good supply of that it will be time to turn our attention to producing wood of value for other purposes. I have carefully inspected four out of the five plantations, and there is very little to show for the labour and money which has been expended on them. The contrast between their condition and that of the flourishing reserves which have cost annually so much less, though they cover a much greater extent of country, is very marked indeed. As the reserves are thinned, they can always be rapidly replenished. Plants will naturally thrive in a rich leaf-mould and in a moist, cool air created by so much vegetation around them.

	Rs.	A.	P.
Doperapally Railway Fuel Plantation ...	787	9	0
Codoor Red Sander Plantation	441	9	2
Reddipally Railway Fuel Plantation	2,529	5	6
Pullampett do. do.	4,215	5	0
Camalapoor do. do.	907	14	6
Total...	8,851	11	2

6. The collection of seigniorage on account of engine-wood, at the rate of Rs. 1 per 1,000 lbs., has amounted to nearly Rupees 40,000.† This will give an idea of the rapidity with which the railway is burning up the forests. At this rate, in a very few years fuel will become exceedingly scarce, and no time should now be lost in enclosing for reserves.

† *Vide* Statement E, Rupees 36,940-6-6.

7. It is surprising to me that the forest officers should complain so much of the petty free felling, as it is termed of the villagers, while so little has been said regarding the consumption by the railway. The fact is by the former practice a little money is lost to Government, while the latter yields a large revenue. During the past year the value of wood cut on free Passes is Rupees 1,792-8-0.‡ No doubt, as the Deputy-Conservator says, this does not represent the entire value of the wood removed from the forests; but supposing that wood has thus been taken to four times this amount, the effect on the forests will be very trifling. It is only necessary to see that wood is not taken for sale without payment of seigniorage, and it seems to me to matter little whether wood legitimately taken free is covered by a Pass or not. The quantity and quality of the wood taken by each person will show the tanna officials to what purposes it is to be applied.

‡ *Vide* Statement F.

8. The fires in the jungle are most destructive. They are caused by the cowherds sometimes accidentally, but more frequently wilfully. The burning of the old grass causes the young grass to shoot up more rapidly, and good pasturage is obtained for the cattle. It is very difficult to say how this is to be stopped. It will not be of the slightest use to make the act punishable criminally, as convictions will be so rare. It will be almost impossible to say who among the many cattle-watchers in the hills at one time originated the fire. I can only suggest that a fine should be levied by Revenue-officials on owners whose cattle it is known are grazing on the hills on which the fires appear. It is well known in a village whose cattle are on the hills, but it would be

impossible to say who caused the fire. It is absurd to talk of the damage caused by cattle to young saplings when these fires are allowed to destroy everything in the shape of vegetation on the hills.

9. The sale of Red Sanders roots, stumps, and posts, has proved very remunerative. The cost of collection and carting to the depôt at Codoor was, including seigniorage, Rupees 5,931. The sales realized Rupees 21,824*. This source of revenue will not, of course, last for ever, and to protect growing Red Sanders portions of the forest should be enclosed. There can be no objections to the collection of roots and stumps of trees already destroyed being continued till the forests are drained.

* *Vide* Statement A.

10. The total receipts on account of forests amount to Rupees 73,260,† while the expenditure, including conservancy and establishments, was Rupees 26,745,‡ leaving a net profit of Rupees 46,515, besides stock in hand valued at Rupees 4,265. I would rather that the profits were less and the reserves larger.

† *Vide* Statement A.

‡ *Vide* Statement A.

11. The Pullampett Taluq contains 54 Shrotriem and Jaghire villages. Now that the railway has created such a demand for fuel, and it is known that the forests can yield such a large revenue, some of the Shrotriemdars and Jaghiredars are claiming, for the first time, large tracts of jungle in the vicinity of their villages, and the settlement officers are engaged in disposing of their claims. These disputes are not easy of settlement. The old Pymaish accounts only show the cultivable extent of land in each village, and the Inam Commissioner's title-deeds complicate matters by the addition of the words "besides poramboke" to the extent of land in the village. The owners of the villages maintain that the additional words give them a claim to the jungles. If this is admitted, it will depend solely on the forbearance of these Inamdars how much of forest land will be left for Government, because there are no boundaries in the jungles to enable the Government to say that the right of the Inamdars does not extend beyond a certain point. I have no doubt myself that the jungles were not included in the original grants. The term poramboke is never applied to forest land, but to cultivable unassessed waste. When these villages were given free of assessment, and for a great many years afterwards forest lands were considered to be of no value whatever, and a gift of such lands to a Brahmin, or, indeed, to any one, would probably have been rejected. The Shrotriemdars are really entitled to only that portion of land which was cultivated, or rendered capable of being cultivated by being cleared of jungle at the time when the grant was made. As it might be difficult to determine how much land was in that condition at that time, the claim might be admitted so as to include all land now cleared between the jungle and the land which is generally recognized as Shrotriem land. This would ordinarily place the boundary at the base of hills. It is quite impossible to suppose that the hills were included in the grant. In former days, only agricultural produce was prized. Forest culture was not known or thought of, and the hills are fit for nothing else. I am searching for information in the records on this subject, but I doubt whether there is anything to be found which will throw more light upon it. If the exorbitant claim of the Shrotriemdars is admitted, the loss not only to Government in the shape of revenue but to the country will be enormous. The jungles will not be judiciously cleared, but they will be ruthlessly stripped of every stick they contain with a view only to present profits.

Shrotriem Villages	51
Jaghires	3
Total..	54

12. Great credit is due to all connected with the Forest Department in past years for the very efficient manner in which the work has been performed with the small establishment at their disposal. The establishment in the past year has cost only Rupees 8,651-14-10§. I cannot give the extent of forest which has been brought under the operations of the department, but I know it is very large, and portions of the country are very unhealthy. A larger establishment is

§ Inclusive of salaries, allowances, and contingencies, *vide* Statement A.

required to complete the work of conservancy, which, I consider, has been only commenced, and on this subject I am about to submit a separate report.

Dated 14th July 1873, No. 76, with prescribed Statements prepared with reference to Board's instructions in paragraphs 3 and 4 of their Proceedings, dated 8th May 1873, Forest No. 21.

13. Enclosed is the report* of the Deputy-Conservator Mr. Yarde. The amount of energy, activity, and intelligence which this officer brings to bear upon his work is well known, and he does not appear to me to be at all disposed to be grasping with the people ; and he readily admits all reasonable rights and privileges which may be urged by them.

I have the honour to be,
Sir,
Your most obedient servant,

(Signed) W. D. HORSLEY,
Collector.

[ENCLOSURE 1.]

No. 76.

DEPUTY-CONSERVATOR'S OFFICE,
CAMP CODOOR, 14*th July* 1873.

From

H. H. YARDE, ESQ.,
Deputy-Conservator of Forests, Cuddapah District,

To

W. D. HORSLEY, ESQ.,
Collector and Conservator of Forests, Cuddapah.

SIR,—I have the honour to submit you my revised Annual Administration Report of my Range for the official year 1872-73, with the necessary accompaniments.

SECTION I.

Introductory Remarks, mentioning the Name of the Officer in Charge.—Throughout this year I have continued to remain in charge of this District Forest Range, together with the railway fuel plantations, assisted by my only Overseer Mr. H. Stafford, though, from 17th August to 23rd January 1873, Acting Overseer T. A. Maduranayagum Pillay was in charge of the Camalapoor plantation, previous to which it was an addition to Mr. Stafford's charge.

Mr. G. Hadfield, a Probationary Assistant Conservator under tuition, left this district on the 19th April 1872 for the Trichinopoly District, *via* North Arcot, to visit the plantations there, after learning the duties of a range officer. During the period I have travelled through most portion of my charge in the various taluqs, and very many times visiting all the railway fuel reserves, railway fuel plantations, and important forest tracts.

Much of my time was taken up owing to the several boundary disputes by Shrotriemdars of the district and the Yenkatagherry Zemindari of the Nellore District, which promises to be very detrimental to our forest operations, as will be shown in more detail hereafter.

SECTION II.

A.—RESERVED FOREST, OPERATIONS, AND CONTEMPLATED OPERATIONS.—None.

B.—FUEL RESERVES, OPERATIONS, AND CONTEMPLATED OPERATIONS.

Baulpalli Railway Fuel Reserve, No. I.—Throughout the year on this reserve two watchmen were employed to prevent felling and trespasses of any kind. The density and improvement in the reserve is very perceptible. A nursery has been kept up, and filling up in open space and gaps has been carried out. The cost of the watchmen, at Rupees 6 each per mensem, was Rupees 144.

Baulpalli Railway Fuel Reserve No. 11.—No funds being available, this piece has not been fenced in, and consequently the employment of watchmen was unnecessary ; hence, no cost this year against this reserve.

Sullakuntachanoo Railway Fuel Reserve.—A gardener and two watchmen were engaged to protect this portion and conduct other planting work where it was necessary, and the cost thereof has been Rupees 216, *i.e.*, the three men at Rupees 6 each. Here also very much good has been done, as the trees being unmolested have sprung up and the under-growth increased very considerably.

Yerraguntacottah Railway Fuel Reserve.—No cost ; not yet fenced in.

Codoor Hill Railway Fuel Reserve.—This is to be an addition to the present railway fuel reserve at Sullakuntachanoo. No funds being available, and the settlement of the boundary disputes between the Government forests and that of Vellalavarikundrikai Shrotriemdars not yet being concluded, the fencing in this portion has been postponed. As yet no cost against this reserve.

Strinivassapuram Kothapully Agraharam Jungles.—This Shrotriemdar's jungles adjoining our forests necessitated the employment of two watchmen by us to prevent his people from felling in our limit, and the cost thereof during the year has been Rupees 144. The Baulpalli reserve costing Rupees 144, the Sullakuntachanoo Rupees 216, and Strinivassapuram Kothapully Agraharam Rupees 144, makes a total Rupees 504 ; to which must be added Rupees 102 expended for my travelling by rail during the year and chargeable to these reserves, making a total expenditure of Rupees 606 as per Statement A, Conservancy and Working, heading VII.

C.—Plantations, Operations, and contemplated Operations.

Ooperapully Railway Fuel Plantation.—In all 15,061 plants were put out from the nursery, of which 11,474 were casualties re-placed in the following kinds:—1,787 Melia Azadirachta, 70 Muthy, 1,422 Cassia florida, and 8,195 Albizzia Lebbek. Of the 3,587 freshly planted out, 237 were Melia Azadirachta, 300 Cassia florida, 410 Casuarina equestifolia, 60 Muthy, and 2,580 Albizzia Lebbek. The casualties that occurred during the year were 2,765, viz., 555 Melia Azadirachta, 130 Cassia florida, 50 Muthy, 100 Acacia Arabica, 30 Udagay, and 1,900 Albizzia Lebbek. Sixty-one nursery-beds were added in the following species:—36 Albizzia Lebbek, 9 Muthy, and 16 Yagee. 800 pits were excavated, 18 yards fencing repaired, 108 chains channelling cleared and weeded, 3,636 plants weeded around, 4,306½ chains channelling sown with different kinds of seeds as follows:—203 Acacia amara, 2,015 Albizzia Lebbek, 1,244 Acacia Arabica, 329½ Melia Azadirachta, 197 Eugenia Jambolana, and 338 Udugay. Ninety-two measures seeds collected, viz., 32 Acacia amara and 60 Albizzia Lebbek.

	Rs.	A.	P.
Plantation working charges, including pitting and channelling...	588	9	0
Fencing	.....		
Hired establishment	169	0	0
Total ..	757	9	0

Codoor Red Sander Plantation.—The usual works were carried out on this plantation, *i.e.*, putting down young plants between the established ones in pits and channels, sowing of Red Sander seeds and other kinds in nursery-beds and watering them, weeding and clearing the plantation of all brushwood interfering with the growth of the young plants, and the general up-keep of the nursery.

	Rs.	A.	P.
Plantation working charges, including pitting and channelling ..	276	9	2
Fencing	.....		
Hired establishment	168	0	0
Total...	444	9	2

Reddipully Railway Fuel Plantation.—On this plantation 7,995 plants were put out of the nursery, of which 2,938 were casualties re-placed in the following species:—2,675 Albizzia

Lebbek, 77 Cassia florida, 172 Melia Azadirachta, and 14 Inga Saman. The remainder 5,057 freshly planted out were the Albizzia Lebbek. The casualties during the year were 4,757 amongst the under-mentioned kinds :—3,232 Albizzia Lebbek, 827 Acacia Arabica, 52 Cassia florida, 172 Melia Azadirachta, 55 Acacia amara, 14 Inga Saman, 300 Casuarina equestifolia, and 105 Udugay. Four Red Sander and one Jack nursery-beds were prepared and added. 1,789 chains channelling sown with the seeds of the Albizzia Lebbek, Melia Azadirachta, Acacia amara, Tamarindus Indica, Acacia Arabica, Eugenia Jambolana, and Cassia florida. Two chains of Aloe-fencing repaired that was washed away during some of the heavy rains; 3¼ acres ploughed and sown broadcast with Acacia Arabica seeds, 1,810 pits excavated, 7,900 plants weeded around, and 345 measures Albizzia Lebbek seeds collected.

	Rs.	A.	P.
Plantation working charges, including pitting and channelling...	1,193	3	6
Fencing	1,167	2	0
Hired Establishment	169	0	0
Total...	2,529	5	6

Pullampett Railway Fuel Plantation.—15,410 plants were put out from the nursery, 550 of which were the casualties re-placed—in Albizzia Lebbek 395, Melia Azadirachta 125, and Cassia florida 30 ; and the remainder 14,860 of the following kinds freshly transplanted out :—5,873 Melia Azadirachta, 1,643 Cassia florida, 7,923 Albizzia Lebbek, 110 Casuarina equestifolia, 198 Muthy, 72 Inga Saman, 21 Ficus Indica, 10 Mangifera Indica, 10 Bassia latifolia. The casualties that occurred were 1,732 in all, viz., 67 Casuarina equestifolia, 490 Melia Azadirachta, 255 Albizzia Lebbek, 220 Cassia florida, 530 Acacia Arabica, 25 Muthy, 25 Inga Saman, and 120 Udugay. 710 pits excavated, 308 chains channelling weeded and cleared, 8½ acres ploughed up and sown broadcast with Acacia Arabica seeds, 56 nursery-beds prepared and added, viz., 24 Albizzia Lebbek, 31 Melia Azadirachta, and 1 Cassia florida. 280 measures Albizzia Lebbek seeds collected. 810 chains channelling sown with the following kinds of seeds :—197½ chains Acacia amara, 203½ Acacia Arabica, 191½ Melia Azadirachta, 189 Albizzia Lebbek, 7½ Cassia florida, and 21 Eugenia Jambolana.

	Rs.	A.	P.
Plantation working charges, including pitting and channelling...	3,843	5	0
Fencing	245	0	0
Hired Establishment	127	0	0
Total...	4,215	5	0

Camalapoor Railway Fuel Plantation.—On this plantation 30,109 plants in all were removed from the nursery and transplanted out, of which 1,439 were casualties re-placed, *i.e.*, 1,125 Melia Azadirachta and 314 Casuarina equestifolia ; and the remainder 28,670 freshly put in the following kinds :—27,155 Albizzia Lebbek, 1,485 Casuarina equestifolia, and 30 Cassia florida. The casuals were 3,369 as follows :—1,725 Melia Azadirachta, 464 Casuarina equestifolia, 780 Cassia florida, and 400 Albizzia Lebbek. 6,250 chains of channelling were sown with the seeds of the Acacia Arabica, 25,640 plants weeded, 123 chains fencing repaired, 15,375 pits excavated, 5,200 pits sown with seeds, and 200 chains channelling weeded and cleared.

	Rs.	A.	P.
Plantation working charges, including pitting and channelling...	571	14	6
Fencing	.....		
Sanctioned Establishment	336	0	0
Total...	907	14	6

In Statement A, Receipts, heading IX., Rupees 20 will be found, which was realized by giving the grass on the above plantation on contract.

Extensive nurseries on all and every one of these plantations have been kept up to be enabled to re-place casualties as they occur and transplanting during the season, permitting such

works to be carried out. In the first quarter, in the month of May only, there were some sudden heavy downpours in the Pullampett Taluq, which benefited them to a great extent, but also proved a little destructive to the Reddipully plantation in washing away some fencing, some established plants and seeds sown in channels, also silting up a good deal of the excavated channels.

In the second quarter of the year, viz., July, there were some few small showers of rain doing much good ; in August they were very general and frequent, which enabled a good deal of planting out work to be gone through. In September, in the Pullampett Taluq, there was hardly any good rain, while Camalapoor got to be fortunate for water.

During the three months of the third quarter much rain came down, but unfortunately from the want of funds we were unable to take advantage of them, and thus, we may say, a whole planting season entirely lost. We just had sufficient money to keep up the nurseries.

In the fourth quarter, only in the beginning of February, we had a couple of days' rain, which, however, helped the younger plants a great way, as they were assuming a very parched up appearance, especially owing to the hot months being passed through.

Albizzia Lebbek, Muthy, and Cassia florida, thrive best at Ooperapully ; Acacia amara has been experimentally tried season before last ; and Udugay last season.

The same may be said for the Reddipully and Pullampett plantations ; at Camalapoor Acacia Arabica, Albizzia Lebbek, and Acacia amara are being tried.

Against the head of Expenditure on all the plantations as per Statement A, Conservancy and Working, heading VI, the total is Rupees 8,518-11-2 ; but the expenditure of Rupees 336 against the last plantation (Camalapoor) for sanctioned establishment must be looked for from "Statement A, Establishment, heading I., Salaries, viz., one head gardener, at Rupees 10, and three under-gardeners, at Rupees 6 each per mensem."

SECTION III.

License and Voucher Forests.—This system remains unchanged, while some works are carried on departmentally, *i.e.*, collection of Red Sander roots and stumps and posts and other timbers for the depôt.

Timbers supplied to Public Departments.—21 cubic feet, 4½ inches, of Kullum wood was supplied in the month of January 1873, as per Statement E.-I., to the Commissary of Ordnance, Fort St. George, Madras, and vouchers sent to be signed and returned as a support for our returns, but that officer sent a transfer remittance receipt to the Conservator for Rupees 26-11-3, which was cashed and credited in the Treasury Accounts, *vide* Statement A, heading I., "Value of timber supplied to Public Works Department," which makes it a cash transaction ; but the order of Government prohibits a dealing of that sort with Public Departments. It should have been a mere transfer voucher, with the value of timber, signed by the receiving officer, to be a sufficient guarantee for entering the same in the accounts.

Timber, Firewood, Bamboos, etc., removed by Wood-cutters on Licenses.—*Vide* Statement A, Receipts, heading II., which exhibits solely the collection under those heads and system.

Engine Firewood.—To the extent of 16,491 tons and 566½ lbs. was taken, realizing Rupees 36,940-6-6, exceeding last year's revenue by Rupees 14,059-4-3, and which is included in the amount in Statement A, Receipts, heading II.

Quantity of Timbers of all Descriptions felled and stored in Depôts.—*Vide* Statement B. 2,061,190 lbs. was collected into the depôts of Codoor during the year, at Rupees 4-9-8 per 1,600 lbs., and at a cost of Rupees 5,031-4-8 ; 210 1st-class Red Sander posts, at Annas 12 each, Rupees 157-8-0 ; and 1,773 2nd-class posts, at Annas 10, Rupees 1,108-2-0. The amounts, or valuation in the above form, includes the seigniorage attached, at Rupees 3, on every 1,000 lbs. of Red Sander roots and stumps, and Rupees 6 to every 20 posts or a cart-load, which rates were once in force under the license system, but the amounts given here are what they actually cost the department, including carting.

Timbers of all Descriptions sold to Merchants from Depôts by Tender or Auction and the Quantity to be accounted for.—In last year's account, there was a balance on 1st April 1872 of 2,571 cubic feet ¾ inch of Thumbah timber; 662,010 lbs. Red Sander roots and stumps; 100 Red Sander, 1st-class, and 200 2nd-class posts, *vide* Statement D; to which must be added the quantities mentioned in the foregoing paragraph as "collected during the year" as per Statement B, making Red Sander roots and stumps 2,723,200 lbs., 310 1st class and 1,973 2nd class Red Sander posts, and from this must be deducted the sales as follows:—Red Sander roots and stumps 2,240,000 lbs., or 1,000 tons; 1,532-3¼ cubic feet Thumbah timber; 304 1st class and 1,107 2nd-class Red Sander posts. The roots and stumps were sold to Messrs. Dymes and Co., at Rs. 8 per 1,000 lbs, for Rs. 17,920, and for this voucher is attached to Statement A in support of heading I. for September 1872, leaving a balance, on 1st April 1873, Red Sander posts, 1st class, 6 or 10 cubic feet; 2nd class posts 866 or 1,443¾ cubic feet; 483,200 lbs. Red Sander roots and stumps; and 1,038 cubic feet 9 5/12 inch Thumbah wood as per Statement D, "Particulars of balance," valued at Rs. 4,264-15-10.

Confiscations.—The amount realized by sales under this head has been Rupees 563-4-0, *vide* Statement A, Receipts, heading VII., "Sales of confiscated timbers."

Measures taken for extending and improving the Forests.—Attention as usual has been paid whenever excursion into the forests were made with regard to removal of all obstinate creepers about the valuable timber-trees. No cost against this head has been incurred, as the peons and others of the establishment carried out such work, even while on their own beat duty through the jungles.

Elephants and other Cattle and Carts employed in the Forests and their Work.—Only thirteen carts were employed for removal from the forests the confiscated timbers during this period, at a cost of Rs. 17, as per Statement A, Conservancy and Working, heading I., "Carriage of confiscated timbers."

Free Felling.—Statement F shows the quantities taken free by ryots in each taluq for their *bona fide* agricultural purposes. This is only an account for which documents, *i.e.*, "Free Passes," were issued; but greater quantities without a doubt have been taken, and the ryots have generally supplied their wants without obtaining the necessary authority. The Pullampett Taluq shows a very meagre distribution; for timber no entry whatever, more especially when it comes to be considered that the taluq is so scattered with so much and very valuable forests and villages adjacent to the whole of the forest range. The valuation of the materials in the statement is estimated at Rupees 1,792-8-0.

Any valuable, rare or new Plants.—None.

Forest Products.—The proposal for the collection of this kind not being sanctioned, nothing was done in this line.

Outstanding Advances.—Amounts to Rupees 73-15-0 remaining in the hands of myself and Overseer, advanced to him for the operations of the Ooperapully, Reddipully, and Pullampett Railway fuel plantations. I am answerable for Rupees 70-6-0, Rupees 30 being the permanent advance for office contingencies and Rupees 40-6-0 the balance on the Codoor and Camalapoor plantations. The Overseer has Rupees 3-9-0 belonging to the plantations; he is in charge of Ooperapully, Reddipully, and Pullampett.

Trespass or Damage committed in the Nurseries, Plantations, or Forests, and the Results of Criminal Prosecutions—The results in cases have been about 70 and number of persons 73 per cent. conviction for persons who cut timbers, etc., clandestinely, (without the necessary authority, licenses) and such reserved timbers as are restricted in felling; but I don't mean to say that these cases comprise the whole of the offences committed. A very great many have gone undetected from want of sufficient establishment to watch the very numerous outlets from each forest.

The annual fires have in no way decreased, and the depredations committed by cowherds, who flock to these forest range from the Nellore District and the taluqs in this during the hot

season with very large flocks of cattle of all descriptions and remain penned up in the hills for months together, hewing down especially the most valuable Red Sander trees as fodder. Cattle trespasses on the plantations have been summarily disposed of by the Pound fine having been made to bear on each case, and considered a sufficient punishment since no damages to nurseries or plants resulted.

SECTION IV.

Yield of Forests.

Amount of Timbers, etc., etc., taken from the Forests during the Year.

Timbers.			Fire-Wood.			Bamboos.			Charcoal.			Barks of Wood.			Palmyrah.			Red Sander Roots and Stumps.			Red Sander 1st-class Posts.			Red Sander 2nd-class Posts.		
Departmentally.	On License.	Free.	Departmentally.	On License.	Free.	Departmentally.	On License.	Free.	Departmentally.	On License.	Free.	Departmentally.	On License.	Free.	Departmentally.	On License.	Free.	Departmentally.	On License.	Free.	Departmentally.	On License.	Free.	Departmentally.	On License.	Free.
,,	104,300 cubic feet.	6,680 cubic feet.	,,	707 tons, 320 lbs.	56,120 maunds.	,,	1,163 bandies and 642 assloads.	111 bandies.	,,	570 parahs.	,,	,,	136 bandies.	,,	,,	374 trees.	,,	2,061,190 lbs.	,,	,,	350 cubic feet.	,,	,,	2,955 cubic feet.	,,	,,

The firewood includes the quantity of fuel taken by the Railway Company as well as on licenses by other parties. The only difference in the system being that the Railway Company pay into the treasury Rupee 1 on every 1,000 lbs. supplied them by the contractor, whereas merchants pay the seigniorage beforehand into the treasury. The above Section shows the entire drainage on my forests for the year under review, independent of the quantity smuggled and clandestinely felled.

SECTION V.

Financial Results.

				Rs.	A.	P.
Receipts.						
For the year 1872-73, *vide* Statement A....				73,260	15	1
Expenditure.	Rs.	A.	P.			
Conservancy and Working, *vide* Statement A.	18,093	13	6			
Establishment I. and II., *vide* Statement A....	8,575	15	4			
Contingencies III, do.	75	15	6			
				26,745	12	4
Net profit to Government				46,515	2	9
Vide Balance of stock on hand on the 1st April 1873, Statement D.				4,265	0	10
Total ..				50,780	3	7

The amount of Rupees 1,792-8-0, the valuation of free felling during the year, is not included in the above amounts. My Budget-estimate for 1872-73 was as follows :—Receipts Rupees 50,000. And expenditure under Conservancy and Working Rupees 15,000, with a supplemental sanction of Rupees 5,000 and establishment Rupees 9,000, making in all Rs. 29,000; while the actual receipts have been Rupees 73,260-15-1 and expenditure Rupees 18,093-13-6 and Rupees 8,651 14 10, respectively making a total of Rs. 26,745-12-4 ; thus the surplus to Government credit Rupees 46,515-2-9, instead of Rupees 26,000 as was anticipated. The increase in receipts must be attributed chiefly to the extra quantity of engine firewood taken by the Railway Company and excess in expenditure to the extensive operations on the additional Railway fuel plantations and the Railway fuel reserves, which were not under contemplation when the Budget-estimate was being prepared and forwarded, and which necessitated a supplemental amount being sanctioned, viz., Rupees 5,000; Rupees 224, the salaries of a head gardener (Rupees 10) and three under-gardeners (at Rupees 6 each,) viz., Rupees 28 per mensem for eight months, was drawn from the Cuddapah District and paid to the establishment on the Ghooty plantation in the Bellary District, and added in the accounts of that district, *i.e.*, from April to October 1872; hence a less amount as abovementioned will appear in the General Statement, but explained by a foot-note.

Results of the previous year (1871-72) were as follow :—

Budget-estimate.					*Actuals.*				
		RS.	A.	P.			RS.	A.	P.
Receipts...		50,000	0	0	Receipts		55,330	1	3
Conservancy and	RS.				Conservancy and	RS. A. P.			
Working ...	18,000				Working ...	14,833 1 2			
Establishment ...	9,160				Establishment...	7,751 13 10			
		27,160	0	0			22,584	15	0
		22,840	0	0			32,745	2	3

SECTION VI.

General Remarks.—As mentioned in my last year's report that other Shrotriemdars like Strinivassapuram Kathapulli Agraharam will, in course of time, advance their claims to hill and other lowland forests, and eventually enter the market with the department to supply the Railway Company with fuel, one at Vellalavari Kundrikai has already done so, and another next to him called Mubarayapuram Agraharam has commenced to object to our wood-cutters entering the hill forests adjoining his village, which, from time immemorial, has been open to them.

Our new Railway fuel reserves have not yet been fenced. I should think that a separate sanction should be obtained for this work, since my Budget-estimate did not make arrangement for this extensive work.

During the heavy rains of the monsoon the depôt walls at Codoor and Baulpalli were damaged to some extent, and again repaired, when the weather permitted, from the working charges of the district. Much is the regret that from want of sufficient funds during the past planting season that that description of work could not be carried out ; and hence a whole season has been irretrievably lost. The rains were opportune and plentiful, and I anticipated doing very much during the season in the planting line.

Health of Establishment and Conduct.—During the year a peon in the Budwail Taluq and a Railway fuel reserve watchman at Baulpalli died from the malarious fever peculiar to those portions of the district forests, and almost every Tannah peon situated in the jungles were obliged from sickness to take advantage of leave on substitutes. The season has been rather unhealthy, and fevers very prevalent. My Overseer was prostrated with the dengue, and I was obliged to give him a short rest. I also had several small attacks of fever at different periods.

The work of my Office has much increased of late, and with the limited establishment of one Writer and a Duffadar who assists, I have been with the greatest difficulty able to despatch my accounts and the periodical returns in proper time. Separately I forward a proposed revision, as called for in G. O., No. 1,674, dated 13th December 1872.

My Overseer, Mr. H. Stafford, was in charge of the Camalapoor and Ghooty plantations, besides his other plantations in the Pullampett Taluq, from 1st April 1872 to 17th August, when T. A. Maduranayagam Pillay took charge and remained till 23rd January 1873, on which date his services were dispensed with.

I am happy to be able to report that all and every one of my establishment have worked cheerfully and conducted their several duties to my entire satisfaction.

I cannot but remark here that the present enormous rate of consumption of fuel by the Madras Railway Company has removed our forests to a great distance from the line and up to the brow of the both ranges of hills in the Pullampett Taluq, which, I think, will necessitate our resting our forests for a while to enable them to recover the depredations committed since the last six or seven years.

I have the honour to be,
Sir,
Your most obedient servant,
(Signed) H. H. YARDE,
Deputy-Conservator of Forests,
Cuddapah District.

BELLARY COLLECTOR'S OFFICE,
5th July 1873.

No. 216.

From

J. H. MASTER, ESQ.,
Collector of Bellary,

To

J. GROSE, ESQ.,
Secretary to the Board of Revenue, Madras.

SIR,—With reference to paragraph 1 of the Proceedings of the Board of Revenue, Forest No. 21, dated 8th May last, I have the honour to report on the administration of forests in this district for 1872-73.

2. The forests in this district were taken charge of by me from 1st October last, as per paragraph 1 of the Proceedings of the Board of Revenue, Forest No. 1, dated 17th September last, and Rupees 400 have been advanced to the Deputy-Conservator of Forests as permanent advance fund, as per paragraph 2 of the Proceedings, Forest No. 7, dated 12th February last, to enable him to incur the working charges of the Ghooty forest plantation. The balance, viz., Rupee 0-2-4, which remained unexpended at the end of March last from the amounts drawn by the Deputy-Conservator of Forests previous to 31st October last under the letter of credit system, has been credited in the accounts for this month, as per paragraph 10 of the Proceedings, dated 12th February last alluded to above.

3. No payments have been made from the treasuries in this district for working charges, as provision was only made in the Budget for payments to be made from the Cuddapah treasury for both the Cuddapah and the Bellary plantation; the only charge that was incurred in this district was Rupees 28 on account of pay of the gardeners employed under Mr. Yarde, the Deputy-Conservator of Forests.

4. The amount expended up to 31st March last is Rs. 1,277-1-4, as will be seen from the Statement D, of which the amount accounted for by the submission of bills is Rs. 952-12-0, leaving a balance unaccounted for of Rs. 324-5-4; a portion of this, viz., Rupee 0-2-4, was remitted to the treasury as stated in paragraph 3. The unaccounted balance is, therefore, Rs. 324-3-0. I have requested the Deputy-Conservator of forests to expedite the submission of bills for the same,

5. I herein enclose the report and statements received from the Deputy-Conservator of Forests.

6. A detailed statement of unadjusted balances, as required by paragraph 11 of the Proceedings of the Board, No. 195, of the 12th February 1873, will be shortly submitted.

I have the honour to be,
Sir,
Your most obedient servant,

(Signed) J. H. MASTER,
Collector.

List of Papers sent to the Board of Revenue with letter, dated 5th July 1873, from the Collector of Bellary.

Statements Nos. I., II., and III.,

Forms A, B, C, D, and E.

Annual Administration Report for the year 1872-73 from the Deputy-Conservator of Forests of the Bellary District.

[ENCLOSURE 1.]

DEPUTY-CONSERVATOR'S OFFICE,
CODOOR, *26th April* 1873.

No. 17.

From

H. H. YARDE, ESQ.,
Deputy-Conservator of Forests, Cuddapah, etc.,

To

J. H. MASTER, ESQ.,
Collector and Conservator of Forests, Bellary.

SIR,—I have the honour to submit you my annual Administration Report of my range for the official year 1872-73, together with the necessary accompaniments.

SECTION I.

Introductory Remarks, mentioning the Name of the Officer in Charge.—Throughout the year for which this has reference to, I have continued in charge of the Ghooty Railway Fuel Plantation, assisted by my Cuddapah Overseer, Mr. H. Stafford, from 1st April to 16th August 1872, and from that date up to 23rd January 1873 by Overseer T. A. Maduranaigum Pillay. I personally visited the plantation in the months of April, May, June, and July 1872, and February and March 1873. From August 1872 to January 1873, I was unable to travel to Ghooty from press of business in the Cuddapah range, chiefly on account of the boundary dispute between that district and the Venkataghiri Zemindari in the Nellore, together with other minor disputes of the same kind by Shrotriemdars belonging to the Cuddapah District and owing to the operations of the Revenue Settlement Department.

SECTION II.

A.—RESERVED FORESTS, OPERATIONS, AND CONTEMPLATED OPERATIONS.—Nil.

B.—FUEL RESERVES, OPERATIONS, AND CONTEMPLATED OPERATIONS.—Nil.

C.—PLANTATIONS, OPERATIONS, AND CONTEMPLATED OPERATIONS.

Ghooty Railway Fuel Plantation.—In all 30,897 plants were put out from the nursery, of which 7,667 were the casualties re-placed, and the remainder 23,130 freshly transplanted out; and

in the following species 22,410 Melia Azadirachta, 120 Albizzia Lebbek, and 600 Cananga odorata. Towards the casualties the following kinds contributed 2,577 Melia Azadirachta, 5,020 Albizzia Lebbek, and 70 Cananga odorata. The casualties that occurred during the year were 710 Melia Azadirachta, 5,150 Albizzia Lebbek, 37 Cassia florida, and 70 Cananga odorata, making a total of 5,967. 13,520 pits were excavated, and to facilitate planting work some was done by contract. 351 nursery-beds were prepared and added among the following species :—137 Albizzia Lebbek, 12 Cananga odorata, 8 Cassia florida, 184 Melia Azadirachta, and 10 Ippei. 5,136 chains of channelling were sown with seeds, viz., 4,986 Acacia Arabica and 150 Melia Azadirachta. 175 measures Acacia Arabica seeds sown broadcast, 80 chains fencing repaired, 18,770 plants weeded around, and 1,712 chains of channelling weeded and cleared. Besides the works above enumerated other minor works were executed, such as the up-keep of nursery throughout the year by watering and weeding, clearing, spading, and deepening the wells for watering purposes, and repairing fence that was damaged during the heavy rains, etc., etc.

A large nursery has been kept up with a view to re-placing casualties as they occur, and to transplant from during the planting season, as also to supply private individuals and ryots, free of any charge, who may wish to plant around their fields, or water-courses as boundary marks, etc. No requisition of this kind having been made this year, no such distribution was made.

Melia Azadirachta and Acacia Arabica are the only two kinds seemingly thrive best on this plot, as can be seen from previous year's planting. Last year Tamarindus Indica, Acacia amara, and Albizzia Lebbek were plentifully sown in channels experimentally ; the coming year must elapse before a conclusion can be arrived at as to the adaptability of the soil for these kinds.

	RS.	A.	P.
Plantation working charges, including pitting, rail charge, etc.	952	12	0
Fixed establishment	336	0	0
Total...	1,288	12	0

Against the head of "Fixed Establishment" Rs. 336 has been placed, at the rate of Rs. 28 per mensem, for the head gardener, at Rs. 10, and three under-gardeners, at Rs. 6 each ; but only from November 1872 the amount was drawn from the Bellary treasury, while up to that date, from March 1872, it used to be drawn from the Cuddapah treasury.

In the plantation working charges Rs. 323-12-0 is included, which was paid to contractors for pitting work done to facilitate planting work.

SECTION III.

License and Voucher Forests.—Nil.

Timber supplied to Department Public Works.—Nil, as per Form E.

Timbers, Firewood, Bamboos, etc., removed by Wood-cutters on License.—Nil, as per Form A, heading II.

Quantity of Timbers of all Descriptions felled and stored in Depots.—Nil, as per Form E.

Timbers of all Descriptions sold to Merchants from Depots by Tender or Auction, and the Quantity to be accounted for.—Nil, as per Form E.

Confiscations.—Nil, as per Form A, heading VII.

Measures taken for extending and improving the Forests.—Nil.

Elephants and other Cattle and Carts employed in the Forests and their Work.—Nil.

Free felling.—Nil, as per Statement II.

Any valuable, rare, or new plants.—Nil.

Forest Products.—Nil.

Outstanding Advances.—Nil, as per Form D.

Trespass or Damages committed in the Nurseries, Plantations, or Forests, and the Results of Criminal Prosecutions.—Cattle have trespassed frequently into the plantation ; but they were generally impounded ; and by the collection of the pound fees from the owners I consider it a sufficient punishment, since no damages were done to the plants or nursery, as per Statement III.

SECTION IV.

Yield of forests.—Nil.

SECTION V.

Financial Results.—Nil, as per Form A.

SECTION VI.

General Remarks.—In the first quarter of the official year, viz., in April and May, there was no rain. In June some small periodical showers fell. In the second quarter in August there was some rain and in the beginning and end of September good rain fell which saved the plants greatly from perishing owing to the hot months being passed through.

During the third quarter, viz., October and November, there was much good rain, but advantage could not have been taken of them for planting purposes owing to the want of funds. In December there was no rain.

During the fourth quarter, being the months of January, February, and March, which are dead months in the planting line, there was no rain in the two first months, and the mango showers also failing during March seems a great drawback to the younger plants. Owing to the failures in rain, watering had to be conducted to some extent to save the weaker plants.

All the plants suited to this soil are looking to advantage as each year passes by.

I have the honour to be,
Sir,
Your most obedient servant,
(Signed) H. H. YARDE,
Deputy Conservator of Forests

KURNOOL COLLECTOR'S OFFICE,
5th August 1873.

No. 233.

From

J. HOPE, ESQ.,
Acting Collector Kurnool,

To

J. GROSE, ESQ.,
Secretary to the Board of Revenue, Madras.

SIR,—As directed in Board's Proceedings, dated 8th May 1873, Forest No. 71-246, I have the honour to report on the administration of the Forest Department for 1872-73, and to submit six statements prepared in the manner prescribed in G. O., No. 609, dated 16th April 1872.

2. The department was transferred to the charge of the Collector in the month of October 1872 in accordance with G. O., dated 20th August 1872, No. 1,238, and Board's Proceedings, dated 17th September 1872, Forest No. 1-1,849. The forest administered by the special department comprises the whole range of the Nallamallays, extending over a tract of nearly 2,500 square miles.

SECTION I.

3. *Inspection Tours.*—During the year the Assistant Conservator, Mr. Boileau, inspected the whole of the forests under his charge, with the exception of the northern portion of the Markapur Taluq. The plantations and reserves and other important portions were visited more than once and received due attention.

SECTION II.

Reserved Forests.—A portion of the forests situated between the Nandikanama and Yelegode ghauts, comprising an area of about 200 square miles, was ordered to be formed into a reserve in 1869, but, owing to apprehensions being entertained of a falling off in the revenue, the order does not appear to have been strictly enforced, and licenses were granted for felling wood

within these jungles. In September last, however, the whole of the reserve was closed, with the exception of the tract adjoining the Bassavapuram station. This also has since been closed, and felling is now strictly prohibited.

(2.) The question of working the reserve by departmental agency, suggested in paragraph 4 of the G. O. quoted in paragraph 1, will receive my careful consideration when I am in a position to visit the forests so soon as a Covenanted Assistant is appointed to the district as promised in G. O., dated 25th April last, No. 430.

(*B.*) *Fuel Reserves.*—There are no fuel reserves in this district. An attempt was made in this direction in 1866, but after more than Rs. 400 were expended it was found advisable to abandon the project (*vide* Board's Proceedings, dated 10th August 1867, No. 5,143). I find from the Conservator's report for 1869-70 that "plantations for fuel, or, in fact, any sort of timber, except Teak, Sandal, Red Sanders, etc., would not pay in this district."

(*C.*) *Plantations.*—There are two plantations,—one at Wonkaram called "the training and experimental plantation;" and the other at Muttikonda, intended for growing Teak. The former was commenced in 1869-70, and about 15 acres of land were cleared for the purpose. Sandal seed was sown in a small plot of ground, and the plants (550 in number) transplanted in the following year; but they all died, and, at the end of 1870-71, there were only 196 Redwood plants and 554 Wild Mango. The Mango, however, were reported to be "dying." The Forest Report for 1871-72 has not yet been received, and I am unable to state what improvements were made in that period. In the year under review, Mr. Boileau reports that the "plantation is in a thriving condition, although the soil is very poor." It contains 730 Mango trees, 150 Redwood, 50 Somee trees, 15 Billu, 5 Kanaga, and 2 Sambrannie trees.

(2.) In the nurseries, some Red Sanders, obtained from Codoor in the Cuddapah District, and Chirimann and other seeds were sown, but only a few of the Red Sanders are said to have germinated. All the Nallamaddi trees transplanted have died, and also a greater portion of the Somee. Mr. Boileau attributes this failure to the inexperience of the gardeners, who, he says, are but mere coolies, and recommends that some gardeners such as are at Bangalore should be employed. I fear this would be a very expensive measure, and doubt its necessity. Mr. Boileau might try and train some men himself, and offer them higher pay on their improving.

(3.) Since the plantation was commenced in 1869-70, I find that (excluding the year 1871-72, for which I have no account) Rs. 1,095 have been expended on it, as shown in the margin, and there are now scarcely a thousand trees standing on the ground. From one cause or another, the trees planted in one year have all died in the next, and after a trial of nearly four years, and an expenditure of more than Rs. 1,000, "the largest Mango tree is only seven feet in height, with a girth, at three feet from the ground, of not more than five inches; and the largest Redwood tree is about nine feet six inches in height, and has a girth of seven inches at three feet from the ground." Mr. Boileau says that, if the soil were better, the trees would be healthier, and very few casualties would occur. From paragraph 55 of Major Beddome's report for 1870-71, I am led to believe that the plantation, as its name "training and experimental" implies, was commenced partly with a view to train men for service in the forest; but it is clear that the object has not been realized, and that the experiment has not been a success. I therefore doubt the expediency of incurring any more outlay on the work, and request the Board will communicate with the Inspector of Forests, and pass such orders as they may deem proper.

	Rs.	A.	P.
1869-70	177	0	0
1870-71	603	0	2
1872-73	315	0	0
Total...	1,095	0	2

(4.) *Muttikonda.*—The Teak plantation at Muttikonda appears to be a decided failure. This was commenced in 1866-67, when about an acre of ground was cleared for nursery, and 1,000 pits dug and seeds sown. In 1867-68, the growth of the plants was reported to be "very slow," and in the following year the plantation was pronounced to be "rather a failure." In 1869-70, however, it was found that "the trees had taken quite a start," and about 10 to 15 acres of the adjoining ground were, therefore, prepared for extending the plantation. In 1870-71, there

were 300 trees (Teak) on the ground, from three to five feet in height, with a girth of four to five inches, but they were reported by Mr. Morgan to be looking " very unhealthy." In the year under report, there were only 132 trees situated in one-fourth of an acre.

Nundial Nursery.—This is maintained from the Local Funds, but it is placed under the superintendence of the Forest Assistant owing to its being situated close to his bungalow in Nundial.

SECTION III.

License and Voucher System.—The number of bandy-loads of timber removed from the forests under this system was 10,886, and the seigniorage thereon Rs. 24,587½ ; of bamboos, 7,421½ bandy-loads and 7,294 bullock-loads were removed, and the seigniorage collected, at 5 and 2 Annas, was Rs. 3,230-15-6 ; 25,867½ kavadi-loads of charcoal were taken at Rs. 1,616-11-6, and firewood 45 bandy-loads and 228 head-loads, at Rs. 55-11-0 ; the total seigniorage thus realized was Rs. 29,490-14-0 against Rs. 31,745-6-0 last year. The decrease is ascribed chiefly to the closing of the Yelegode forests in September last and to the character of the season. Another reason assigned by Mr. Boileau is that two merchants who had obtained the lease of some forests on the Nellore side of the Velikonda from the Kalahastri Zemindar, at a rental of Rs. 90, " issue out licenses all about the southern portion of the Cumbum Taluq, under-selling our licenses," and otherwise smuggle timber from Government jungles. On this point my predecessor addressed the Collector of North Arcot to induce the Zemindar to adopt the procedure suggested in Board's Proceedings, dated 31st August 1871, No. 3,758.

(2.) *Departmental Operations.*—There was no wood felled by departmental agency during the year. Of the stock in the depôts, 343,¼ cubic feet of Inamaddi and 82½ of Teak were sold for Rs. 418-2-4, or Rs. 79 below the valuation. The timber is said to have been cut nearly five years ago, and some of the logs became damaged from exposure, and had to be sold at a loss. The stock in hand is 486½ cubic feet of Inamaddi, valued at Rs. 486-4-0.

(3.) Rs. 78-2-0 worth of Teak, Rs. 18-14-8 worth of Inamaddi, and Rs. 150 worth of firewood for burning chunam, were supplied to the Department Public Works.

(4.) *Free Felling.*—The accounts for all the taluqs have not yet been received. The submission of the report has been delayed owing to the non-receipt of this information. A separate statement will be submitted when the information is received from Mr. Boileau.

SECTION IV.

Yield of Forests.—The quantity of timber taken from the forests under each rate is given in Statement E. Altogether 417,833½ cubic feet of wood were removed, and the seigniorage realized Rs. 29,490-14-0, or a little more than one Anna per cubic foot.

SECTION V.

Financial Result.—The receipts from all sources amounted to Rs. 31,011-12-7, and the expenses to Rs. 8,086-8-7, leaving a net profit to Government of Rs. 22,925-4-0 against Rs. 26,204-14-5 last year. The decrease in the receipts has been already explained in paragraph 3, Section III. The increase in the expenditure is principally due to the cost of purchasing Mr. Morgan's bungalow and repairing the same, as sanctioned in G. O., No. 284, dated 13th February 1872, communicated in Board's Proceedings, Miscellaneous No. 1,223, dated 20th idem.

SECTION VI.

General Remarks.—The department has been working under many disadvantages in the year under report. Many of the subordinates were laid up with fever, and one is said to have succumbed to it. Mr. Boileau himself did not escape the fever, but, in spite of it, he has discharged his duties to my entire satisfaction.

(2.) A depôt was opened at Kurnool as an experiment, and 82½ cubic feet of timber appear to have been sold from it. Licenses were permitted to be issued by the Tahsildar at Chagalmarri in the Sirwell Taluq.

(3.) Seventy-eight cases of breach of Forest Rules were prosecuted before the Magistracy, and resulted in the conviction of 141 persons. Smuggling is still carried on under cover of Passes

granted by Achayya's heirs and other private proprietors, but I am in hopes a great check will be placed upon it when these forests are demarcated and surveyed by the Settlement Department. Part of the boundary line of Achayya's durkhast lands has been already cleared, and the Director of Revenue Settlement has promised to send a surveyor at an early date (letter No. 1,173-179, dated 7th June 1873).

I have the honour to be,
Sir,
Your most obedient servant,
(Signed) J. HOPE,
Acting Collector.

[ENCLOSURE 1.]

DEPUTY-CONSERVATOR'S OFFICE,
NANDIAL, 17*th April* 1873.

From

E. H. BOILEAU, ESQ.,
Probationary Deputy-Conservator of Forests,

To

J. HOPE, ESQ.,
Acting Collector of Kurnool.

SIR,—I have the honour to forward my report for the official year 1872-73.

SECTION I.

Inspection Tours of the Officer in Charge.—During this year I have travelled over the whole of my range, with the exception of the northern portion of the Markapur Taluq. I have been twice over to the Cumbum side of the Nallamallays to inspect the tannah stations, accounts, and jungles; but my second visit was of short duration owing to fever, as all my servants as well as myself were prostrated. On this side of the hills I have visited and inspected the stations, accounts, and forests, constantly, especially that portion known as the "Reserves." I have also been to Kurnool several times to look after the Teak depôt, as well as to consult the Collector on forest affairs; and, lastly, I have visited the plantation at the foot of the hills very often, and I twice went to Muttikonda, which is in the centre of the hills, at which place I have a small Teak plantation to look after.

SECTION II.

Reserved Forests and contemplated Operations.—In September last, the Yellegode forests were closed, and I should recommend the opening of two new stations,—the one at Nulla Carlwar, the other at Cottapully,—if Government will increase my establishment. It will throw open to the public a large tract of jungle, which is not now used by the public, except for smuggling; it will give a fairer portion of the jungles to the peons stationed at Mooslemudgoo, Venkattapuram, and Yellegode, to look after (as these peons have a great deal more jungle to watch than they can manage); it will also increase our revenue, which has decreased on account of the closing of the Yellegode forests, as this station before it was shut was one of our best paying stations. There is still one more station open in the reserves, viz., Bassavapuram. I propose closing it next official year, 1873-74. I should have done so before, but I thought it would be better to allow the revenue to decrease gradually. When this station is closed, our "Reserves" will not be so "nominally" as they have been since they were formed. A great deal of Teak is cut in the "Reserves" and conveyed away at night time. The whole transaction is accomplished during the night. When the wood arrives at its destination, it is stocked in the carpenters' houses at night, and, when made up, is sent off at night; and I hear that the carpenters of Nandial and other places abet the smugglers by giving them high cooly-hire. It is all done as stealthily as possible; in fact, so much so, that I never hear about it until the wood has been cut up and made into cot legs, etc., and sold; then a person will come and tell me, when it is too late, that he saw some Teak splinters near such and such a carpenter's house.

B.—Plantations, Wonkaram.—This plantation is in a thriving condition, although the soil is very poor. In extent it is about 15 acres, situated at the foot of the hills, on the road leading to Muttikonda, and contains the following trees: —730 Mango trees (*Mangifera Indica*), 150 Redwood trees (*Adenanthera Pavonina*), 50 Somee trees (*Soymida febrifuga*), 15 Billu trees (*Chloroxylon swietenia*), 5 Kanaga trees, 2 Sambrannie. The nurseries contain Red Sanders, Chirimann, and other trees. The Red Sanders I obtained from Codoor as an experiment, but only a few have germinated. All the Nullamuddy trees I transplanted have died, as also a greater portion of the Somee. I attribute this failure to the inexperience of the gardeners, who are really nothing more than coolies. The only thing they understand is to water the trees and dig; I am obliged to show them how to do almost everything which a gardener by trade would not require showing. I should advocate, therefore, that gardeners, such as are at Bangaloro, be employed; at any rate, have a head gardener of this sort. The expenditure has been Rs. 315. This is the pay of the so called gardeners, and also a few extra coolies put on by me to assist the permanent workmen in the hot weather to water the trees twice a-day. The largest Mango tree is about 7 feet in height, with a girth of 3 feet from the ground of 5 inches. The largest Redwood tree is about 9 feet 6 inches in height, and has a girth of 7 inches at 3 feet from the ground. The plantation is getting on, and if the soil was better the trees would be healthier, and very few casualties would occur. I may safely assert that it is through my constantly visiting this estate that it has thrived, and also that I had issued orders to my two nearest station peons to go and visit the plantation once a-week at least. The work performed on the Wonkaram plantation was watering trees daily and also the nurseries, pitting, transplanting, forming new nurseries, cutting bamboos for fence and repairing fence, re-building the two huts (as one was blown down, the other burnt), hoeing round the trees, and weeding with grass knives.

Mutticonda.—This is a Teak plantation situated about 18 miles from Ermapad station and 11 miles from the foot of the hills. It is about one-fourth of an acre in extent only, and contains 132 Teak trees (*Tectona grandis*). Four casualties have occurred during the year. The largest tree is 15 feet in height, with a girth of 10 inches at 3 feet from the ground. The work performed is as follows:—Trees pruned, grass cut in plantation, fence repaired, fire-path cut round the hut and plantation (20 feet wide); these works were performed both times I visited the place. The expenditure has been Rs. 24-14-0

Nandial Nursery.—This is a small plantation, which surrounds the forest bungalow, and is kept up by the Local Funds. I have had a trench, 3 feet × 3 feet, dug all round this plantation, as cattle used to trespass and eat off the heads of the young trees; but now as no cattle can enter the nursery, plants are all thriving. Some have grown at least 5 feet within the year. The work performed is as follows:—Trees and nurseries watered daily, in rainy weather weeded with grass knives, in the hot season weeded clean, casualties re-placed, pits dug, new nursery-beds formed, etc The nursery was intended to supply ryots with trees and the Revenue authorities for planting avenues. But I have had no application at all for this year. The expenditure has been pay of the gardener Rs. 7 per mensem and 30 Rs. for improvements, out of which I have a balance left of Rupees 17-4-5; this all comes out of the Local Funds as also did the cost of the trench, Rs. 60. I intend planting up two more small plots next year.

C.—Fuel Reserves and contemplated Operations.—None.

SECTION III.

Voucher and License System.—The number of bandies brought out of these forests is as follows:—

Bandies, at Rs. 6	... ...	732 (Reserved wood worked),
,, at ,, 3	... ...	4,695 (do. unworked).
,, at ,, 2	... ...	651½ (Jungle-wood worked).
,, at ,, 1	... ...	4,807½ (do. unworked).
,, at ,, 5	... ...	7,421½ (Bamboos).
Bullock-loads at As. 2	... ...	7,294 (do.).
Cavadies, at Anna 1	... ...	25,867½ (Charcoal).
Head-loads, at Pies 9	... ...	228 (Firewood).
Firewood, at Rupee 1 per bandy	... ...	45 (do.).

From the last heading we derive only a few rupees per annum, as it is priced too high. I think that, if it be reduced to 4 Annas per bandy, we shall get many more bandies, as they take the firewood for sale ; the durkhast owners are kept up by the number of bandies of firewood they sell ; some of them price it at 4 Annas, some at 6, and others at 8 Annas ; and if we reduce the rate, we will get all the bandies from the durkhast owners, as our jungles contain a greater assortment of timbers, and, therefore, they will prefer coming to us.

SECTION IV.

Expenditure and Yield of Forests.—The expenditure has been Rs. 1,501, or about 800 Rs. more than last year. This I can readily account for, first, the cost of purchasing the forest bungalow at Rs 510 from Mr. Morgan ; secondly, the repairing of same at a cost of Rs. 400 ; and, thirdly, the repairing of Cumbum (?) at about 60 Rs. The other items for expenditure are carriage of confiscated timber, plantations, and purchase of tools, also collection of seeds. The list is as follows :—

			Rs.	A.	P.
I.	Carriage of timber		108	2	0
II.	Purchase of tools, etc.		55	0	0
V.	Collection of seeds, etc, ...		16	4	0
VI.	Plantations	Wonkaram	315	0	0
		Mutticonda	24	14	0
X.	Buildings, etc.		981	12	0
		Total...	1,501	0	0

So, if you deduct the cost of buildings, the expenses would have been about Rs. 166 less than 1871-72. The next official year we intend felling 200 logs of wood, 100 for Cumbum, and 100 for Nandial. There being no merchants' depôts on the Cumbum side greatly aids us in disposing of our stock in that depôt, but on this side there are eighty-six sowcars, who all manage to under-sell us, and, consequently, I only sold one log, and three by auction as they were damaged. Our department offers to the public old wood at 1 Rupee per cubic foot, when they can get the same description of wood from the merchants in good condition far cheaper. Is it, therefore, to be wondered at that they prefer the merchants' wood? The Teak depôt at Kurnool is cleared out at the commencement of the official year. I sent up seventeen logs which have been all disposed of ; the rate was Rs. 1-14-0, seigniorage 1-8-0, *plus* 6 Annas, cost of cartage up to Kurnool. The Public Works Department have taken Rs. 78-2-0 worth of Teak, and 18-14-8 worth of Innamuddy, and 150 Rs. worth of firewood for burning chunam. This is an improvement, as last year the demand for wood from other departments was *nil*. The whole of last year I was attempting to obtain tenders for felling, but I failed. At the end of March 1873 I was enabled to obtain a contractor for the felling on the Cumbum side, but am still without a contractor on this side. The yield of forest-fruits, etc., has been nothing, as Mr. Chase informed me that I was not to sell any forest-produce, as it interfered with the rights of the Chensuars. The Chensuars no doubt manage to make a little out of forest-fruits, etc., but the principal parties concerned in this trade are the merchants who send their own men into the forests (and do not, as is supposed, purchase it all from the hill-men). They may purchase a small quantity, about one-twentieth of the jungle produce brought out of the forests. The Chensuars are, in the first place, too lazy to work, except to obtain their daily food.

SECTION V.

Financial Results.—The revenue has been Rupees 31,011-12-7, or Rupees 2,581-13-4 less than that of last year This can be accounted for in many ways, firstly, the closing of the Yellegode forests in September ; secondly, no fruits or other forest-produce was sold during 1872-73 ; thirdly, it has been a very rainy year (it, the rain, having commenced on the 17th of June, and gave over the third week in November), and consequently a loss in revenue to the Forest Department ; and, lastly, two Komities have leased the forests on the Nellore side

of the Velikonda from the Kalastry Rajah at a rental of Rupees 90 only, but they issue out licenses all about the southern portion of the Cumbum Taluq, under-selling our licenses of course, and, therefore, taking out of our hands a good portion of last year's revenue. The wood covered by these licenses is all dragged through the Government jungles, and consequently a great portion of it is felled in Government jungles, as the parties holding their licenses would naturally not care to go to the Nellore side of these hills for their wood when it is growing close to their villages.

SECTION VI.

General Remarks.—I and a great number of my establishment have been continually having fever ; but this must be expected in our department, as our work is of such a nature that it is impossible to avoid it, however careful you may be. I am sorry to say that one peon at the commencement of the official year succumbed to it. While inspecting the forests, I came upon a large tract of Nullamuddy, some miles in area, with a few Chirimann and Yegi interspersed. But I have seen very few Teak trees. I am unable to append the usual accounts, viz., "firewood on free pass," etc., etc., as I have not yet received them from the different Tahsildars, but on receipt of the same I will despatch them as soon as possible.

The Sirwell Tahsildar commenced issuing licenses and tickets at Chagalmarry this year at my suggestion, and was carried out under the orders of the Collector ; by doing this we have saved the ryots (who live about the southern portion of the Sirwell Taluq and that portion of the Cuddapah District bordering on the aforesaid taluq) the necessity of coming all the way to Nandial to procure licenses, etc. The subordinates have all done their work very satisfactorily during the year, and therefore I need not report upon any particular individual.

I have the honour to be,
Sir,
Your most obedient servant,

(Signed) E. H. BOILEAU,
Probationary Deputy-Conservator of Forests.

NORTH ARCOT COLLECTOR'S OFFICE, CHITTOOR,
3rd September 1873.

No. 544.

From

W. S. WHITESIDE, Esq.,
Collector of North Arcot,

To

H. E. STOKES, Esq.,
Acting Secretary to the Board of Revenue, Madras.

SIR,—I have the honour to forward the Annual Report on the forests of this district for the official year 1872-73, submitted by the Deputy-Conservator of Forests of this district to Major Beddome, the Inspector of Forests, and transmitted to this office by the latter officer, as it has been ordered by Government that no Annual Report need be submitted by the Inspector of Forests, and that each Collector, as Conservator, should send his Forest Administration Report to the Board of Revenue, in view to the Board drawing up and submitting one general and comprehensive report to Government from these reports.

2. The report herewith submitted has been prepared, the Board will observe, in the manner prescribed in paragraphs 24 to 26 of the G. O., dated 16th April 1872, No. 609, on the Forest Administration Report for 1870-71.

3. Of the two fuel reserves, Mamandur and Amboor, the latter has, upon the representation of the villagers that their grazing and communal rights would be infringed by the enclosing or fencing in of the reserve, been directed by Government, in their order of the 11th June 1873, No. 591, to be abandoned. It now becomes necessary to search for some other site for the reserve; but there is not, as far as I can foresee, the slightest hope of finding one, for, as all the forests are open to the same right of grazing as the Amboor reserve, there is sure to be the same objection to any other piece of forest that may be selected for a reserve as there has been to that at Amboor.

4. I have, in my letter of the 21st July last, No. 422, written at length on this subject, and now await the orders of Government thereon.

5. The expenditure on these two reserves from the commencement up to date has been Rs. 2,078-8-11 and Rs. 193-8-0, respectively.

6. There are eight railway fuel plantations in the district. Of these three plantations, about 240 acres in extent, have had no money spent on them, the ground having been only recently taken up. On the remaining plantations, which are 980 acres in extent, Rs. 5,942-0-10 have been laid out during the official year. The number of trees, which are chiefly Casuarina, permanently established in these plantations is 455,745. In the year under report 252,044 trees were planted out. Of this number 5,000 were planted in the reserve.

Trivellam Plantation.	Thengal Plantation.
Verinjeepuram do.	Keelminnel do.
Cheynoor do.	Vannivedu do.
Gazerlmandum do.	Ammoondy do.

7. There is an experimental plantation* in the district kept up as a training school for planters. It is 25 acres in extent, and contains about ninety different kinds of jungle trees, besides some Sandal and red Sanders plants.

* Ammerdy Plantation.

8. The expenditure on all the plantations for the year was Rs. 6,053-12-6.

9. The receipts from the forests in the district during the year amounted to Rs. 19,830-2-8, of which Rs. 13,739-6-2 were derived from the sale of timber, firewood, bamboos, and charcoal at the forests and from seigniorage, and Rs. 5,404-4-6 from the sale of timber and Sandalwood brought to the depôt by the Government agency.

10. The conservancy and working charges amounted to Rs. 8,059-0-11, and the expenditure on account of establishment was Rs. 9,656-4-7, making a total expenditure of Rs. 17,715-5-6.

11. The value of timber on hand on the 31st March 1872 and of timber felled during 1872-73 was Rs. 5,879-4-10. Timber to the value of Rs. 4,498-8-10 was sold during the year, leaving timber on hand to the value of Rs. 1,384-12-0. This timber consists chiefly of Redwood roots and Redwood posts.

12. There has been an increase of Rs. 3,384 in the forest revenue during the year under report, and this is due to there having been an increased demand for junglewood, bamboos, and firewood. None of the reserved timber has been allowed to be felled during the year on license.

13. The smuggling of wood from the forests in the district is, I regret to observe, very great; but when the arrangement suggested in my letter of the 22nd January last, No. 41, for placing all the Government forests in the district under the charge of the Deputy-Conservator is matured, approved, and sanctioned, I hope to be able, in a great measure, to put down this obnoxious practice.

I have the honour to be,

Sir,

Your most obedient servant,

(Signed) W. S. WHITESIDE,

Collector.

[Enclosure 1.]

Office of the Deputy-Conservator of Forests,
Vellore, *3rd April* 1873.

From

T. SHEFFIELD, Esq.,
Deputy-Conservator of Forests, North Arcot,

To.

Major R. H. BEDDOME,
Inspector of Forests.

Sir,—I have the honour to submit the Administration Report on the North Arcot forests for the year 1872-73.

SECTION I.

Inspection Tours of the Officer in Charge.—I have been in charge the whole of the year, during which time I visited the forest in Vellore, Chendragherry, and Polur Taluqs repeatedly, paid one visit to Palmanair forests, visited the Tallia Mullia Sandal plantation in the Coimbatore District, and monthly inspected the reserves and plantations (eleven in number) in this district, being absent from head-quarters 192 days.

SECTION II.

A.—Reserved Forests.—None.

B.— Fuel Reserves.

Mamundoor Reserve.—It is four square miles in extent, situated close to the line of rail, about 8 miles north of the Triputty Station, is entirely enclosed and strictly reserved, neither man nor beast being allowed in. Two wells have been sunk and two nurseries of about half an acre each established. During the year 5,000 plants have been planted from the nurseries. There is a very marked improvement in this reserve since its enclosure ; young trees of natural growth are springing up in thousands, and the trees formerly felled for railway fuel are throwing out vigorous shoots, which being protected from cattle and from being felled by the wood-cutters shows the advantage of enclosures.

It is certainly money well laid out, for, leaving out of consideration the increase of fuel-wood, there are in the reserve, I should think, over 50,000 young Redwood saplings which being protected from the herdsmen's axe will re-pay the cost of the fence several times over. The expenditure during the year was Rupees 654-7-3, most of which was paid for felling the jungle round the reserve for boundary stones and masonry pillars for demarcation. Total expenditure from commencement up to date Rupees 2,078-8-11.

Amboor Reserve.—This is 6 square miles in extent, situated about 3 miles south of the railway, opposite Amboor Station. The jungle has been felled several times for railway fuel, and requires a great deal of planting and care. It has not yet been enclosed, because the villagers disputed our right to exclude their cattle, and I received orders to stop all work pending the settlement of the dispute ; the matter has now been arranged, and Rupees 2,000 lately sanctioned to enclose the land ; and up to this time we have felled a belt of jungle about 6 yards wide round the reserve, and erected boundary stones and pillars for the survey operation, and shall push on as rapidly as possible with the fencing. Most of the fencing will be a dry stone wall on account of the rocky nature of the ground, with here and there a trench, bank, and aloe hedge where the soil will allow of it.

The reserve has a frontage of 3 miles, with a depth of 2 miles, but the ground being very hilly, our fence will probably be over 12 miles in length. The expenditure is Rupees 193-8-0.

Plantation.	Acreage.	Nature of.	Expenditure.					Receipts.	No. of Trees planted out and Casualties replaced.	No. of Casualties that occurred during the year.	No. of Trees permanently established.	Expenditure from commencement.	Remarks.
			Planting Charges including Pitting and Channelling.	Fencing.	Establishment.		Total.						
					Permanent.	Hired.							
			Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.					Rs. A. P.	
Trivellum, situated about 8 miles east of Vellore Station at the junction of the Poiney and Palar rivers about a mile from the railway.	434·87	Chiefly Casuarina equestifolia, but containing also a few Cassia of different species. A Railway Fuel Plantation.	1,255 9 0	211 11 9	.....	.....	1,467 4 9	87 4 6	45,944	20,000*	1,36,498	9,163 10 6	*These 20,000 were destroyed by the storm of 2nd May, but all have been re-placed, the bund and fencing repaired, and the planting finished. The largest plants are 7 years old, and averaged 60 feet high and 30 inches circumference at the ground. There are about 20,000 of them, which, if felled and sold now, would realize more than the whole plantation has cost; but, of course, they will not be felled for some years to come, and I mention it merely to show how rapidly they have grown. The average cost per plant, including cost of land, fencing, and all contingent charges, is 1 Anna 1 Pie nearly.
Veeringipoorum, situated about one mile south of the Railway Station of that name in the old bed of the Palar river.	260·48	Casuarina equestifolia. A Railway Fuel plantation.	1,893 2 10	228 0 0	.....	.....	2,121 2 10	Nil	80,000	.....	191,247	4,750 15 0	There are still about 50 acres of this ground yet to be planted when there will be a total of about 2½ lakhs of trees or about 950 to the acre. The cost per plant, including every expense up to date, is 5 Pies nearly. The largest plants are about 20 feet high, and are 3 years old.

Cheyyoor, situated close to the Railway and 2 miles west of Vellore Station.	129·98	It is planted with Casuarina, Albizzia Lebbek, Acacia Arabica, Alangium Lamarkii. A Railway Fuel Plantation.	1,525 5 9	.....	.....	.....	1,525 5 9	Nil.	73,000	.. ..	81,000	2,424 0 0	The expenses on this plantation are a great deal heavier than on the others; this is owing to the nature of the soil, the others being sand, and this hard gravel. The trees planted here also require more care and attention than Casuarina do, and water is only to be had at a great depth. The plants are, however, healthy although not grown much. 50 acres of this land has still to be planted. The cost per plant up to date, including fencing, sinking wells, etc., is 6 Pies nearly.
Gazerlamundum, situated close to the Railway and 2 miles south of the Triputty Station.	44 67	Planted with Casuarina equestifolia A Railway FuelP lantation.	798 15 6	.....	.....	.....	798 15 6	Nil.	44,000	.....	44,000	1,185 14 10	The planting was commenced and finished during the year, and all the plants are thriving. The cost has been, including fencing and wells, a little over 5 Pies per plant. We expect to take up about 200 acres adjoining land, and are preparing nurseries for seedlings for it.
Tengal situated about 1½ miles south of the Poiney railway bridge, and opposite to the Trivellum Plantation.	About 110	Casuarina equestifolia. A Railway Fuel Plantation.	34 4 0	.....	.....	.....	34 4 0	Nil.	2,100	.....	3,000	34 4 0	This plantation was taken over from the Revenue Department at the beginning of the year; it is about 9 acres, but with waste land adjoining about 110; this waste has not yet been handed over, but, I believe, it will shortly be. 900 trees are from 20 to 40 feet high; the remainder were planted during the year.
Keelminnel, situated south of the Palar river, opposite the Trivellum Plantation, and about 1 mile from the Trivellum Railway Station.	About 150	Casuarina equestifolia. A Railway Fuel Plantation.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Only just taken over, and we are now fencing in the ground, sinking wells, and preparing nurseries.

C.—Plantations.—(Concluded.)

Plantation.	Acreage.	Nature of.	Expenditure.					Receipts.	No. of Trees planted out and Casualties replaced.	No. of Casualties that occurred during the year.	No. of Trees permanently established.	Expenditure from commencement.	Remarks.
			Planting Charges, including Pitting and Channelling.	Fencing.	Establishment.		Total.						
					Permanent	Hired.							
			Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs A. P.					Rs. A. P.	
Vanevedu, situated north of the Palar river near Wallajah, and about four and-a-half miles from Arcot Station.	About 30	Casuarina equestifolia. A Railway Fuel Plantation.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Only just taken over; part of the ground has been planted, but the plantation is not in good order; most of it will have to be cleared and re-planted. The plants have not yet been counted. There is enough waste land to make up the plantation to 100 acres.
Ammoondy, situated on the Palar river about six miles west of Vellore, and about three miles from the railway.	About 60	Casuarina equestifolia. A Railway Fuel Plantation.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Only just given over, and no work yet commenced.
Ammerdy situated at the foot of the Javadi Hill, about 12 miles south of Vellore.	25	All kinds of jungle trees, Sandal and Sanders plants. Experimental plantation for training planters.	.....	.....	.....	.....	111 11 8	Nil.	2,000	.....	11,000	2,455 11 9	We have about 90 different kinds of jungle trees growing in this plantation; also some Sandal and some Sanders plants; it is an experimental plantation, and kept up as a training school for our gardeners.

From the above it will be seen that in the different plantations we have planted 252,044 plants at a total cost of Rs. 6,923-13-5* ; this amount also includes the up-keep of previous years' plantings.

* Includes the Reserves.

SECTION III.

License and Voucher Forests and Operations therein.—The public are allowed to fell timber, bamboos, etc., on license in all our forests, but, in truth, we have very little good timber to fell. There is a little Sandalwood on the Javadi hills, and a good deal of young Redwood stumps in the Chendragherry forests, and bamboos are plentiful in all the forests, and from these and fuel most of our revenue is derived. Nearly all building timber of the better sorts is imported from the adjoining districts, but I hope our plantations will, in a few years, yield a good supply of good cheap building timber.

SECTION IV.

A.—Statement showing the Receipts and Disbursements of the North Arcot Forests for the year 1872-73.

Classifications.	Amount.	
	Rs. A. P.	Rs. A. P.
Receipts.		
I.—Sale of timber and Sandalwood brought to depôt by Government agency	5,404 4 6	
II.—Sale of timber, firewood, bamboos, and charcoal, removed from the forests by purchasers, including seigniorage.	13,739 6 2	
III.—Duty on foreign timber	.....	
IV.—Permit fees and rent of jungles and privileges ...	.....	
V.—Grazing dues	.....	
VI.—Sale of fruits, Babul pods, and other minor forest-produce...	257 4 6	
VII.—Sale of confiscated drift and waif timber	157 2 6	
VIII.—Fines and forfeitures	.....	
X.—Miscellaneous receipts	6 1 0	
Value of timber supplied to Public Works Department	.....	
Amount refunded by the Deputy-Conservator of Forests, being the unexpended cash balance on the 31st March 1873	266 0 0	
Total, Receipts...	.....	19,830 2 8
A.—*Conservancy and Working Expenditure.*		
I.—Timber expenses for felling, cutting, clearing, sawing, and the transport of timber by land or water to depôts ; also charges for storing, securing, watching, piling, and arrangements for selling timber...	850 10 8	
II.—Purchase of elephants, cattle, and dead stock, tools and plant	7 9 6	
III.—Feed and keep of elephants and cattle	.....	
IV.—Rent of leased forests and seigniorage paid for timber felled in leased forests, shares of villagers and others in the revenue of forests	.....	
V.—Charges connected with the collection of revenue on grass, fruits, and miscellaneous forest-produce ...	.....	
VI.—Plantations	6,075 14 2	

A.—Statement showing the Receipts and Disbursements of the North Arcot Forests for the year 1872-73.—(Concluded.)

Classifications.	Amount.	
	Rs. A. P.	Rs. A. P.
A.—*Conservancy and Working Expenditure.*—(Concld.)		
VII.—Forest work, viz., cutting of creepers, protection of forests or trees against fire, and other work for the conservancy and improvement of the forests, charges for selecting, working, girdling of the trees to be felled	847 15 3	
VIII.—Forest survey, topographical and valuation survey to ascertain the contents of forest and annual rates of timber production	.....	
IX.—Experiments to test the value of timber of different kinds	1 5 0	
X.—Communications, buildings, and minor works, fences, boundary pillars, and posts, and boundary division paths	275 10 4	
Total, Conservancy and Working...	.....	8,059 0 11
B.—*Establishment.*		
I.—Salaries—		
2. Pay of Executive officers	2,911 10 8	
3. Office Establishment	394 0 0	
4. Forest Conservancy Establishment	3,027 6 4	
5. Timber depôt and Work Establishment	688 14 11	
6. Deputation and Special Allowances	.....	
II.—Travelling Allowances—		
2.—Executive Officers	1,641 0 0	
3. Subordinate Establishment	347 9 3	
III.—Contingencies—		
1. Batta for Office Establishment	.....	
2. Stationery	.....	
3. Office-rent, carriage of tents, and office records ...	.....	
4. Pay of Police Guards...	.....	
5. Sundries	645 11 5	
Total of Establishment...	.....	9,656 4 7
Total of Expenditure...	.....	17,715 5 6
Balance—		
Balance of timber in depôt on 31st March 1872	4,388 4 10	
Add timber felled during 1872-73	1,491 0 0	
Deduct timber sold in 1872-73	.....	4,494 8 10
Balance of timber on hand	.....	*1,384 12 0
* Particulars of the balance of timber on hand and valuation—		
3,136 Maunds of Redwood roots, valued at Annas 3 and $5\frac{14}{44}$ Pies per maund	682 12 0	
530 cubic feet of Redwood posts, valued at Rs. 1 per cubic foot	530 0 0	
257½ cubic feet of Mango beams, valued at Annas 10 and $8\frac{12}{44}$ Pies per cubic foot	172 0 0	
Decrease in stock	.....	3,003 8 10
Financial results, balance against the North Arcot forests	.....	888 11 8

B.—Statement showing in Detail the Timber felled in the North Arcot Forests during the year 1872-73.

Division of Range.	Description of Timber and other Forest-produce.	No. of Cubic Feet.	No. of Maunds.	Rate of Valuation per Cubic Foot.	Rate of Valuation per Maund.	Total Valuation.
1	2	3	4	5	6	7
				Rs. A. P.	Rs. A. P.	Rs. A. P.
Vellore ...	Sandalwood	...	40	.....	3 0 0	120 0 0
Kurcumbadi.	Redwood posts	446	...	1 8 0	.....	669 0 0
Do. ...	Do.	530	...	1 0 0	.....	530 0 0
Vellore ..	Mango beams	257½	...	0 10 8 1/15	.....	172 0 0
					Total...	1,491 0 0

C.—Statement of Timber, etc., sold from the Depôts of the North Arcot Forests during the year 1872-73.

Name of Depôt.	Description of Timber or other Forest-produce; Number of Cubic Feet or Maunds sold and Rate of Valuation per Cubic Foot or Maund.	Total Valuation.	Total Amount actually realized.	Difference between Columns 3 and 4.	Explanation of difference.
1	2	3	4	5	6
		Rs. A. P.	Rs. A. P.	Rs. A. P.	
Kurcumbadi...	11,800 Maunds of Redwood roots	2,297 0 10	2,297 0 10	.....	Valued under old Rules.
Vellore ...	436 Maunds of Sandalwood	1,308 0 0	2,143 9 8	835 9 8	
Kurcumbadi..	593 cubic feet of Redwood posts	889 8 0	963 10 0	74 2 0	
	Total...	4,494 8 10	5,404 4 6	.....	
Total showing aggregate Increase ...		... ...	... ...	909 11 8	

D.—Statement containing the Particulars of the Stock in hand at the commencement and close of the official year 1872-73.

Description of Timber or Forest-produce.	Number of Cubic Feet.	No. of Maunds.	Rate per Cubic Foot or Maund.	Total Valuation.
1	2	3	4	5
			RS. A. P.	RS. A. P.
Redwood roots	...	14,936	0 3 2 1/11	2,979 12 10
Sandalwood	...	396	3 0 0	1,188 0 0
Redwood Posts	147	...	1 8 0	220 8 0
Total...	147	15,332	Total .	4,388 4 10
Add total valuation of timber and forest-produce felled during the year as per column 7, Statement B.				1,491 0 0
			Total...	5,879 4 10
Deduct total valuation of timber, etc., sold during the year as per column 3, Statement C.				4,494 8 10
			Compare remainder with total under column 5...	1,384 12 0

E.—Statement showing the Quantity of Timber, etc., taken from the North Arcot Forests on license during the year 1872-73.

Description of Timber or Forest-produce.	No. of Cubic Feet.	No. of Maunds.	Rate of Seigniorage or sale per Cubic Foot or Maunds.	Total Receipt under each head.
1	2	3	4	5
			RS. A. P.	RS. A. P.
Junglewood	3,472 bandy-loads.	.....	1 0 0	3,472 0 0
Firewood...	1,528 do. ...	.....	1 0 0	1,528 0 0
Charcoal	514 do. ...	.....	1 0 0	514 0 0
Bamboos	7,234 do. ...	.....	0 8 0	3,617 0 0
Bark	139 do. ...	.....	1 0 0	139 0 0
Junglewood	49 head loads ...	.....	0 2 0	6 2 0
Firewood	2,670 do. ...	.....	0 0 9	125 2 6
Charcoal	551 do. ...	.....	1 1 0	34 7 0
Bamboos	2,514 do. ...	.....	0 1 0	157 2 0
Bark	23 do. ...	.....	0 2 0	2 14 0
Railway fuel	.....	.....	... ..	4,143 10 8
Tamarind fruits and other minor forest-produce	.....	.....	.....	257 4 6
	Total...		.....	13,996 10 8

SECTION V.

General Remarks.—There is a steady increase in the revenue which is gratifying. Last year it was Rupees 16,446, this year it is Rupees 19,830-2-8 ; and this has been attained without in any way over-working the forests ; in fact, none of the reserved timbers have been allowed to be felled on license, but there has been an increased demand for "junglewood," bamboos, and firewood, although smuggling of wood from the forests is still very prevalent, I think it is hardly so bad as formerly. There is though plenty of room for improvement still, and as soon as the rules which have been agreed to by the Collector and the Inspector of Forests are sanctioned, and become known in the district, we may fairly look for a considerable increase of revenue and a corresponding decrease in smuggling if the heads of villages do their duty. I have always maintained that it is almost an impossibility to smuggle wood from the forests without the knowledge of the villagers living along the foot of the hills ; and to induce them to take an interest in the forests they are allowed a percentage on all forest-produce passing through their villages from the forests on license, and 50 per cent. of the sale-proceeds of all smuggled timber confiscated by them, yet many of them render us aid very unwillingly ; I believe nearly all of them pocket a good deal of money for allowing smuggled wood to pass, and some of them connive with the forest peons to defraud Government. A case was brought before the Joint-Magistrate some time ago where the village head allowed timber, to the value of more than Rupees 100, to be felled without license, for which he was suspended for six months. Such cases are often occurring, but it is seldom we can get evidence sufficient to warrant us in bringing the case before the Magistrates, for hitherto the people have thought very little of the forest officer, and cared very little about his orders ; but this, I trust, will be all altered shortly, when having the support of the Collector ; his authority will be more respected, and his orders more promptly obeyed.

Our expenditure has increased with the increase of receipts, but this is unavoidable where we have such large planting and conservancy operations, and it may be expected to increase yearly for some years to come under these heads.

Forester Mr. W. Newman had charge of the plantations throughout the year ; they are scattered between Amboor on the South-West Line and Tripatty on the North-West Line, and it required a hard working man to superintend them efficiently. I am glad to report that he has done so ; he has worked hard, and his work is well done.

Forester Mr. Thistlewaite died at the end of the year, and a young man named Newman has been appointed in the department too short a time for me to know his value ; but he appears to take an interest in his work, and, as he is young and strong and intelligent, he will most likely make a good Forester.

The health of the establishment during the year has been pretty good ; at times nearly half the establishment have been down at once with fever or dengue, but only for a few days, and they are again at their work.

I have the honour to be,

Sir,

Your most obedient servant.

(Signed) T. SHEFFIELD,
Deputy-Conservator of Forests.

COLLECTOR'S OFFICE, CUDDALORE,
10*th October* 1873.

No. 379.

From

H. E. SULLIVAN, ESQ.,
Acting Collector of South Arcot,

To

H. E. STOKES, ESQ.,
Acting Secretary to the Board of Revenue, Madras.

SIR,—With reference to Board's Proceedings, Forest No. 21, dated 8th May last, I have the honour to submit the report on the administration of the forests in this district in 1872-73, received from the Deputy-Conservator, and the usual statements which accompanied it.

2. The report contains a full and detailed accounts of the forest operations during the past year, and I consider it unnecessary for me to enter into a recapitulation of them. The general results of the year may be summarised as below.

3. The entire receipts amounted to Rupees 4,100, which was less than the estimated receipts by Rupees 900 only. This difference is the net result chiefly of a decrease below the estimate in Items I. and II. and an increase in Item VI. The expenditure under all heads amounted to Rupees 9,785, exceeding the receipts by Rupees 5,685. The excess over the sanctioned grant for the year amounted to Rupees 2,285, of which Rupees 1,843 were in the salary and travelling allowance of the Deputy-Conservator and of his Office Establishment, including contingencies and the rest in the conservancy and working charges. The increase in the former was in consequence of the provision made in the Budget having been at the old rates of salary and travelling allowance, while the increased rates were drawn from November 1872. The increase in the working charges was the result of more extended planting operations than were originally contemplated which were favoured by the unusual quantity of rain which fell during the past year.

SECTION II.

4. (*A.*) *Of the Deputy-Conservator's Report.*—The operations of the year in the reserved forests consisted in clearing away tangled under-growth and creepers from Teak and other valuable timber trees, and fencing them where necessary, besides carting 813 cubic feet of timber to market depôts and felling 1,614 cubic feet. Felling operations were much checked by the feverishness of the jungles.

SECTION II.

5. (*B.*)—This part of the Deputy-Conservator's Report refers to fuel reserves, of which there are ten altogether, four being termed local fuel reserves and the rest railway reserves. The estimated area of each reserve, the work performed in each, and the cost of the operations, are detailed in the Deputy-Conservator's Report.

SECTION II.

6. (*C.*)—This refers to plantations, three in number, of which the one at Chengam, conveniently situated, has been established experimentally for training up the Subordinate Conservancy Establishment. The operations in all these appear to have been judiciously conducted.

SECTION III.

7. The removals from the forests under the license and voucher system have been 12,963 cubic feet of jungle timber, 1,335 bandy-loads of bamboos, and about 181 tons of firewood and charcoal, besides the large quantity of 34,240 maunds of minor forest produce.

I have the honour to be,
Sir,
Your most obedient servant,

(Signed) H. E. SULLIVAN,
Acting Collector.

[Enclosure 1.]

Office of Deputy-Conservator of Forests,
Cuddalore, *26th September* 1873.

From

H. L. WOOLDRIDGE, Esq.,
Deputy-Conservator of Forests,

To

H. E. SULLIVAN, Esq.,
Collector and Conservator of South Arcot.

Sir,—I have the honour to forward the Administration Report of the South Arcot forests for 1872-73, with the usual statements attached.

SECTION I.

Inspection of the Officer in Charge—April.—On the 6th April 1872 I left Cuddalore for Tindevanum, remained in camp there thirteen days to prepare the annual returns; on 22nd proceeded to Gingee reserves and inspected two reserves and the young plantations; on 24th arrived at Trinomallay depôt. The Overseer inspected five fuel reserves in his range and pointed out the boundaries of Peringalathoor reserve to the Deputy-Collector for a final adjustment of them and several claims to land and rights thereon. During April in head-quarters (Cuddalore) six days; the rest of the month in camp.

May.—Up to 10th May I was chiefly engaged in visiting jungles surrounding the cusbah, three to six miles distant; also inspected Cavatymallay and Trinomallay hill forest improvements (pruning and clearing saplings of Blackwood, Vengai, Nummai, and Satin). I arrived at Chengum depôt on the 11th, inspected Rajacooppummallay *en route*; on the 14th camped at Singarapet near the boundary; on the 15th proceeded to Tripatore relative to the forest boundary on the Javadi hills and the departmental felling contractor's operations on that range; on the 16th returned to Annandavady reserve, inspected it, and arrived at Chengum depôt again on the 17th; on the 18th visited Moodanai reserve, and selected new nursery sites; on the 19th proceeded to Chinnasamudrum reserve, and examined the pruning, fencing, and nurseries; on the 21st started for Thanemallay, reached Bundrave on the 22nd, remained on the hills four days, visited all the villages, encouraged the Malliallies to collect minor forest-produce, fruits, etc., and bring to depôts for sale; observed a considerable number of Sandalwood trees nearly ripe; on the 26th again camped in Chengum depôt, remained there till 29th; on the evening of 29th camped at Dandampet, went to Tripatore next day, returned to Arasangany forests the following (the 31st) morning, found it necessary to curtail the free felling which had been considerable there of late. In camp all this month.

June.—On the 1st June arrived at Chengum from Arasangany and Dandampet, remained in camp there till the 5th; on the 5th I started for Raventapaudy and the hills adjacent, these being the connecting links between the Javadi and the Checkady hills. Many people applied for free passes. Some applications I rejected as jungle grew in abundance quite near their houses, and they could easily remove all they wanted on head-loads (for which no passes are necessary); others were issued in due course later in the month. I observed considerable damage had been done by cattle-herds and charcoal burners to young Satin, Karungali, and Vemboo saplings, which are plentiful in the jungle between this village, the Salem frontier road, and the Annandavady reserve. Suffered from jungle fever about this time, and had to keep quiet in camp for a fortnight; meanwhile endeavoured to get through the office-work which, from my constant inspections and rapid travelling, had got into arrears. Trinomallay forests and Gingee reserves were not visited during June; the Chengum forests and plantations requiring all my attention, this being the first attempt at planting up reserves in this division. In camp the whole of this month.

July.—I remained in this division till the 13th July; on the 14th arrived at Trinomallay, for the auction sale of depôt timber was to take place here on the 15th and 16th; on the 17th I again

went to Chengum depôt to attend the auction sale there held on the 17th and 18th ; on the 18th, as the bidding was slack, I stopped the sale and proceeded to the village of Poodoopolliem on the North Arcot frontier to inspect some bandy-loads of smuggled timber making a detour towards the Thanqmallay and returned to Chengum depôt through the Moodanai reserve. From the 19th to the end of the month, with the exception of the 22nd when I visited Tindevanum to see the Collector, I remained in camp near the Gingee reserves, daily visiting them in succession, and pushed on the planting operations to the utmost. In camp the whole of this month.

August.—Till the 27th August I confined my inspections to superintending the planting operations in the Gingee reserves. On the 27th proceeded to Tindevanum, and from thence to Mercanum on the coast, which place I reached on the 31st. In camp all this month.

September.—On the 1st September I inspected Casuarina plantations at Mercanum with the Collector, and reached Tindevanum again on the 2nd, inspecting the Alathoor jungle on the way with a view to proposing it for a reserve ; on the 4th started for Trivanellore to open a fuel plantation in the bed of the Mullatar (preparatory to this a nursery had already been raised in the village near), and reached Vickravandy, camped there on the 5th, and inspected waste land at 80th mile (Madras road) ; on the 6th camped on the banks of the Pooniar, the river being in flood, and reached Trivanellore on the 7th; commenced operations on the 8th, and remained in camp at Trivanellore, superintending plantation work for the rest of the month, excepting two days when I went to see the Collector on official matters at Villapuram. During these two days I inspected a large tope in the town (Nabob's), and went to a large tract of scrub jungle suited for a reserve, situated four miles from it. In camp all this month.

October.—Till the 2nd October I stayed at Mullatar plantation ; then struck tents, reached Trikaloro on the 3rd, and camped at Agaram, four miles to the north of it, inspecting land for future plantation ; on the 4th arrived at Trinomallay depôt, inspected timber stored there, then proceeded to Patchel, camped there the night of the 5th ; on the 6th camped in Chinnasamudrum reserve, visiting Chengum depôt in passing ; on the 7th went through new plantations in this reserve ; on the 8th broke up camp and went across the hill to Moodanai, inspected that and returned to the depôt ; on the 9th left again for Trinomallay, made no stay, but kept straight on for Gingee reserves ; camped at Gingee for a week and inspected planting and fencing operations lately completed ; on the 20th arrived at Tindevanum, remained here, inspecting local conservancy village topes till 22nd ; I then left for the Mullatar plantations remaining till 27th ; left on that morning for Cuddaloro where I arrived on the 28th. In camp twenty-seven days of this month, four days in head-quarters (Cuddaloro).

November.—In early part of November went over the large Casuarina plantations near the Huzoor lying along the coast with the Collector, and formally took charge on the 5th. Throughout this month, excepting two short trips,—one to the Mullatar plantation near Trivanellore, the other to inspect the waste land to the north of Pondicherry for future Casuarina plantations,—I remained at head-quarters, superintending the new felling (thinning out), lopping, pruning, and making new nurseries for proposed extensions for 1873-74 on the four plantations taken charge of in the early part of the month, and in estimating the value and quantity of timber on them ; settling market-rate for sales from them, forming depôts, etc., etc., ; on the 27th left for Trikaloro anicut, where I arrived on the 29th, visiting Mullatar plantations and Punrooty nursery and tope on the way ; 30th on anicut plantation, superintending new operations which were only commenced the latter end of November 1872. During this month I was in head-quarters for twenty days and in camp ten days.

December.—In December till the 3rd in camp near Trikaloro plantation, returned again to head-quarters, and remained there from the 4th to the 15th engaged in preparing Jungle Conservancy Supplemental Budget-estimate for 1873-74, holding auction sales of wood, and generally attending to the supervision of the plantations on the coast ; on the 16th I started for Vanoor ; on the 17th for Gingee ; on the 18th camped at the reserves and paid the coolies and conservancy establishment, met the Acting Forester here, and gave instructions regarding range matters ; on the 19th reached Trinomallay and inspected the depôt and timbers therein ; on the 20th visited

hill reserve and inspected conservancy operations (clearing out and pruning the hardwood saplings before mentioned), which were to be stopped this month; on the 21st arrived at Chengum depôt; and on the 22nd camped at Dandampet after inspecting Chengum plantations, the depôt registers, and re-piling timber (stock in hand). In head-quarters twelve days this month; in camp the rest.

January.—On the 4th January camped at Muddikerry after being away from the district with leave during Christmas holidays; on the 5th proceeded to inspect Annandavady reserve; on the 6th to Chinnasamudrum reserve; on the 7th to Chengum depôt; on the 8th to Moodanai reserve; on the 9th camped at Patchel; on the 10th inspected Trinomallay depôt; on the 11th camped at Vatavalum; and looked at Gungavarum fuel reserve (not marked out up to this time); 12th camped at Villapuram; 13th Nellicooppum; 14th Cuddalore (head-quarters). I proceeded thus rapidly as I was suffering from a severe attack of jungle fever, which first came on, on the 8th, and I required medical advice; was laid up till 20th. On this day I visited Shonangcooppum plantation, but found I had not recovered enough for out-door work, remained in Office on 21st. On 22nd attempted to inspect Davanapatnam plantation, but knocked up, heat of the sun being almost unbearable. For the next week or till 29th I was unable to do much on inspections, only going to the coast plantations twice in that time. On the 29th I proceeded to Punrooty nursery, felt very unwell; but on 30th left for Mullatar plantations, reaching Trivanellore that evening. 31st inspected Mullatar plantations, and went on to the anicut (plantation), ten miles further, in the evening. In head-quarters fourteen days this month; in camp the rest.

February.—On the 1st February at (Trikalore) anicut plantation, paid arrears of wages due to coolies employed on up-keep of plantings on channel-banks and tank-bunds in Trikalore Taluq, lately taken over from Public Works Department. 2nd was Sunday. 3rd inspected the Tamarind trees planted on seven tank-bunds; 4th inspected eight miles of planting on channel-banks; on 5th returned to Mullatar plantation in the evening, after attending to some planting out of jack trees and Kat-valai at the anicut plantation in the morning, and visiting Yedayar nursery on the way. From 6th to 12th on the Mullatar plantation, instructing new Head Maistry in the work, going over Roll Books, Labour Reports, etc. I had found it necessary to dismiss the former Head Maistry for errors (?) in his Nominal Rolls and Labour Registers. On 12th proceeded to inspect Gramam nursery, four miles distant. 13th, 14th, and 15th camped on the plantation, and settled the pitting contractor's claims for 60,000 pits he had dug after counting them. All through this period had been in bad health. On the night of the 15th I started for Punrooty; 17th reached head-quarters; 18th despatched timber specimens to Madras; and until 24th kept at Office-work. On 25th inspected Fort St. David, and Shonangcooppum plantation; on 26th inspected Tarlancodah and Arundel plantations; the remainder of the month at Office. During this month ten days in head-quarters, 18 days in camp.

March.—Till 3rd at Office. On the 4th I again inspected operations on the four coast plantations abovenamed; on 5th proceeded to Kudicadoo, six miles distant, to examine waste land for a new plantation, and inspected two small topes of Casuarina under the Salt Department; 6th inspected the jail plantation (still under my charge); 7th surveyed backwater channels from Tarlancodah plantation to the market, in view to proposing to deepen them in some places and to make new cuttings, in others to shorten the way by water-transit for delivery of timber and fuel to market; 8th left this morning for the Trikalore plantations, arrived at anicut plantation on the 10th, paid the people, then inspected the work, and in the evening returned to Mullatar plantation near Trivanellore, where I camped for the night; 11th inspected plantation work and paid coolies; 12th inspected five nurseries raised for new operations in succeeding year; 13th on plantation and inspected Curryvalum trees growing in profusion in the water-spread of Yemapoor tank, and tapped them for gum; 14th started for head-quarters which I reached on the morning of the 15th, having inspected Punrooty nursery and superintended the lopping and pruning of the trees there on the way; 17th marked out limit for canal cutting on the Shonangcooppum plantation, and visited Cappermallay, the Virdachellum side of

which plateau is covered for a considerable extent with scrub jungle ; 18th inspected Davanampatnam and Tarlancodah plantations; 19th at Jail plantation, superintending water channel cutting ; 20th again at the cutting, and afterwards through the Shonangcooppum plantation and over the work ; 21st left head-quarters for Poongavanum topo ; 22nd left again for Mullatar plantation, paid wages there, and in the evening rode on to Villapuram ; 23rd at Villapuram, leaving in the evening for Muttitoor ; 24th reached my camp at Gingee reserves from Muttitoor, and inspected plantations in Mootacadoo reserve ; 25th inspected Mailchary, Siroovady, and Chuckler's droog plantation, and went through the three reserves of Cottamangalum, Siroovady, and Mootacadoo ; 26th remained in camp checking Roll Books and Maistries' Registers, and arranged for paying the next morning ; 27th no money had arrived, so I inspected Periamoor and Padepallum reserves and plantations,—a very long inspection, out the whole day at it. 28th paid wages, and in the evening struck tents and moved down four miles to the Gingee bungalow ; 29th left for head-quarters, reached Vanoor that night ; 30th reached Cuddalore via Pondicherry ; 31st inspected Shonangcooppum plantation work. During March fourteen days in head-quarters and seventeen days in camp.

Throughout the year 285 days in camp, and 80 days in head-quarters ; total 365.

SECTION II.

A.—Reserved Forests.—There are no totally reserved forests in the district. All the better sorts of timber trees are, however, reserved for departmental felling. The operations undertaken during the year were clearing away from Teak, Sandal, Vengai, Nummai, Maruthey, Satin, and Blackwood saplings tangled undergrowth and creepers ; trimming them, and, in some cases where more exposed to injury from fire or cattle, mamootying the earth around and fencing them. The number of young trees thus treated were 17,842 in the forests on the Trinomallay, Cavatymallay, Thanemallay, and Checkadivulsaymallay. The cost of these operations was Rs. 100-1-6, of which sum Rs. 87-9-6 appear in the accounts for the year. Besides this work 196 maunds of green gallnuts and 55 lbs. of gums were collected at a cost of Rs. 49-9-0. In the reserve timber operations only 813 cubic feet of Vengai, Nim, Maruthey, Satinwood, Acha, etc., were brought to market depôts, at a cost of Rs. 174-6-3 for felling and Rs. 150-11-1 for carting, out of 1,614 cubic feet, the total felled in forests. The charges on balance remaining in forests are not passed in my accounts under the conditions of agreement with woodmen, till it is brought out to carting places. Felling operations were much checked by the feverishness of the jungles. 840 maunds of Vel-valum bark and 33,400 maunds of Avarum bark were collected and removed from forests and jungles by purchasers themselves ; there was, therefore, no outlay of Government money for the item. Similar operations are proposed in next year.

Sub-Division B. *Fuel Reserves.*—Of these,—there are ten in number, all which have been supported from the forest allotment,—four of them are termed local fuel, and the rest railway fuel reserves. Five are in Trinomally Taluq, and five in Gingee Division, Tindevanum Taluq. The result of operations in the year is as follows :—

Trinomallay Taluq. *Moodanai Reserve (Local).*—Estimated area 4,000 acres. 4,503 pits dug, 5,099 trees planted in new ground, 1,556 plants established in pots for supplying casualties ; 1,748 casualties reported, of those 1,180 were re-placed ; ten cawnies of land were ploughed up and seeds sown broadcast (this experiment was not very successful) ; 10,366 yards of bush fencing were set up ; several maunds of seeds sown in patches in the jungle germinated well. The expenditure by accounts for this reserve, including Maistries, was Rs. 220-2-2.

Chinnasamudrum Reserve (Local).—On this reserve, which is estimated to be 400 acres in extent, 18,307 pits were dug, 14,942 young trees were planted, 456 trees were established in pots for supplying casualties ; 680 casualties were reported, 700 of these were supplied, and 4,475 yards of bush fencing built. The expenditure was Rs. 398-13-10.

Peringalathoor Reserve (Local).—Area 4,800 acres. The only work carried on in this reserve was 885 yards of ordinary jungle fencing, which I commenced in October, but had to stop for want of funds. The expenditure was Rs. 5-4-0.

Annandavady Reserve (local).—Area 1,280 acres. Nothing more than patrolling the jungle was attempted to be done in this reserve. No expenditure.

Gungavarum Reserve (Railway).—Area 8 square miles. This reserve was proposed to be made in June, was thoroughly inspected. Issue of licenses for felling within certain limits stopped, and a peon placed on the spot. The demarcation of boundary has not taken place yet. No expenditure for it. The total number of young trees planted, including supplies in Trinomallay Taluq reserves *from nurseries* during the year, was therefore 21,921.

GINGEE DIVISION. *Mootacadoo Reserve (Railway).*—Estimated area 2,500 acres. Planting operations in this reserve were commenced in June 1871. On this tract during the year under review 22,884 new pits were dug, 26,220 trees were planted out, open pits from last year's work being available in addition, 1,000 trees established in pots for supplying; 1,848 casualties were reported which were all re-placed; 3,204 yards of bush-fencing completed; 28 acres of jungle were cleared out. Jungle tree seeds were collected and sown broadcast in large quantities. Among the rest I determined to try to grow bamboos, of which 105 Madras measures were sown in patches in prepared ground throughout all the reserves; these as well as Acha, Vengai, and Maruthy seeds sown in same manner have proved fairly successful. The expenditure was Rs. 544-6-4.

Padepallum Reserve (Railway).—Area 2,500 acres. A few pits were dug, a nursery formed, and some yards of fencing raised on this tract at the end of 1871. But during this year 13,973 pits were dug, 11,373 plants put out, 500 trees established in pots for supplying casualties, 447 casualties reported, of which 284 were re-placed, 1,944 yards of fencing was made, 19 acres of land cleared. The expenditure was Rs. 459-4-2.

Periamoor Reserve (Railway).—Area 3,480 acres. This would become a very valuable reserve if the Pakkummallay were added to it. Supplemental planting operations were commenced this year. The quantity of the principal works taken in hand were 15,032 pits dug, 16,735 young trees were planted (a small portion of this total was dibbled in with an iron bar without pitting as an experiment); 362 casualties were reported, of which 162 were re-placed; 1,666 yards of bush fencing completed, and 22 cawnies of land cleared for pitting. The expenditure was Rs. 455-8-7.

Siroovady Reserve (Railway).—Area 710 acres. Planting operations commenced this year. A very compact tract of jungle surrounded on three sides by hills; water rather deficient, for a large tank formerly existed within the boundary but the bund breached, and there has been no store of water for several years. I propose to repair this bund roughly. The principal operations during the year were 15,171 pits dug, 11,192 plants put down, some of which were dibbled in as described in the former reserve, 177 plants established in pots for re-placing casualties; 366 casualties reported, of them 306 were re-planted; and 2,624 yards of bush fencing were made. The expenditure was Rs. 327-10-9.

Cottamangalum Reserve (Railway).—Area 2,000 acres. Planting commenced here this year also. During 1872-73, 12,750 pits were dug, 8,534 plants put out, and 2,221 yards of fencing made; 358 casualties occurred; none were re-placed. About 18 cawnies cleared. The total of young trees planted out during the year for all these reserves is 76,242.

SUB-DIVISION C. *Plantations.*—Under this heading are three small concerns; they are *Chengum experimental plantation and nursery* situated near the village of that name and close to the forest depôt on the banks of the Cheyar, commenced and kept up chiefly as a school to teach the subordinate conservancy and reserve establishments. I have succeeded in rearing 28 sorts of forest and avenue trees on this land, in area about 3 acres. The operations during the year were 328 new pits dug, 1,180 young trees planted (open pits remaining from last year's work), 1,880 trees established in pots for supplying casualties or the ryots; 490 casualties occurred in the year, 1,290 were re-placed (last year's casualties not having been re planted in that year); 901 yards of fencing were repaired and 10½ chains of channelling dug and sown. The expenditure on this was Rs. 159-8-9.

Chengum Anicut Plantation.—About 3 miles from the former, area 13 acres, on which 2,475 pits were dug, 2,160 Casuarina trees planted, 207 yards of fencing made, and 30 chains

of channelling dug and sown ; 400 casualties occurred, 100 were re-planted (with Casuarina), and bamboo seed was sown around the boundaries of the block ; this seed, however, did not germinate well. The expenditure was Rupees 19-10-0.

Trinomallay Timber Yard Planting.—The trees planted in 1871, numbering 246, are chiefly Kat-valai, Nim, Illuppey, Tamarind, and Nagai, and they are growing remarkably well. Many of them are 14 feet high. One Kat-valai, over 17 feet, was broken short off 8 feet from the ground in a gale of wind. Besides this, there was only one casualty, to which a plant was again supplied. The work performed here was watering and staking living trees, and digging 230 yards of channelling along the fence in which Kuruckapulli has been grown, and is now about 2 feet high. The expenditure was Rupees 17-2-0. Total young trees planted in the year on these plantations 4,738. The total expenditure for planting and conservancy operations on reserves and plantations in the year 1872-73, as per bills forwarded, amounts to Rupees 2,791-13-11 ; but the actual cost (incurred expenditure) for the whole of the above work, which has been taken out of labour reports up to the end of March 1873, was Rupees 3,458-6-5, for a sum of Rupees 964-5-10 due for work performed could not be disbursed, the allotment for the year being already expended, and a sum of Rupees 22-13-4 were arrears due for 1871-72 and paid in 1872-73. Before closing this section, I would submit that, considering the nature of the soil, scarcity of water during the dry season, and the difficulty of preventing cattle trespass, not only has this work been cheaply done, but that the results are favourable ; for to sum up all the operations in round numbers 103,000 young trees were planted out from nurseries, of which 96,000 might be said to be established "in field" at the close of the year, 10,000 old trees of the previous year's planting, and several nurseries were kept up, tools purchased, water holes deepend or dug, 16 miles of bush fencing set, 10 cawnies of land ploughed forty-two chains of channelling dug, and about 700 measures of different seed collected and sown for a cost of Rupees 3,458. The proposed operations under this section are keeping up existing plantations, supplying the failures, planting out a few thousand Teak and Sandalwood in fresh ground, thinning out the undergrowth on reserves, cutting "rides" throughout them for facilitating conservancy and inspections, building substantial huts for watchmen, leasing out the right to collect fruits, barks, etc.

SECTION III.

License and Voucher Forests.—All forests and jungles under Imperial conservancy in this district are open to license felling under certain restrictions, viz., no reserved timber can be felled on licenses, and certain jungles are periodically closed to all licenses for felling and allowed to rest, and no felling is permitted in the foregoing fuel reserves. The operations, that is, removals from the forests during this year under license and voucher system, have been 12,963 cubic feet of jungle timber, 1,335 bandy-loads of bamboos, 181 tons 6 cwt. 108 lbs. of firewood and charcoal, 34,240 maunds minor produce. The expenditure has been *nil*, but the pay of the subordinate conservancy establishment (Rangers and Thannadars) should perhaps be debited to this item. Under the free passes system the removals were 7,010 cubic feet of junglewood and reserved timber combined, the royalty on which would have been Rupees 554-4-0 ; 133 bandy-loads of bamboos, royalty Rupees 118-13-0 ; 191 tons 10 cwt. 40 lbs. of firewood, royalty Rupees 29, giving a total royalty not realized on free pass removals of Rupees 1,102-1-0.

SECTION IV.

Yield of Forests.—The total yield of forests on all heads, including confiscations during 1872-73, has been 21,944 cubic feet of timber, 1,468 bandy-loads of bamboos, 375 tons 15 cwt. 90 lbs of fuel, 34,518½ maunds of minor produce. The total expenditure on felling was Rupees 174-6-3, and carting Rupees 154-11-1, and depôt charges Rupees 184-4-4. Total timber expenses Rupees 509-5-8.

SECTION V.

Financial Results.—The receipts from all sources of forest revenue were Rupees 4,100-0-9, while the working and conservancy charges, including salary and allowance of executive establishment and office contingencies as per accounts rendered, were Rupees 9,784-13 4, which

leaves a sum of Rupees 5,684-12-7 against the forests. Of the working charges Rupees 2,791-13-11, as above stated, were expended on planting operations, but the allotment for working the forest for the year under review was Rupees 3,000 only, and it was found to be insufficient to clear off the whole expenditure incurred; it becomes evident that if the supplemental planting operations in reserves are to be continued, the allotment must be largely increased; and in that case for a period of several years there must be a considerable annual deficit against the forest. In the two years I have been in charge, the revenue has not increased with the expenditure; this is to be accounted for by planting operations not being immediately remunerative. Any expenditure on felling operations alone would well re-pay the outlay even in *these* forests, which can only be termed second rate. There is Sandalwood now fit to be cut on the Thanemallay and the south-eastern slopes of the Javadimallay, and collecting this would certainly give a fillip to the revenue; but my doing this would, I imagine, cause objectionable departmental disputes as to right to fell and as to the forest boundary on the Javadi hills between Salem and North and South Arcot, which, I believe, has never been finally settled or marked. I only mention it now, as it is a question which somewhat affects the revenue of these forests; and for this reason, now that there is a larger expenditure required in South Arcot than formerly when it was combined with Salem forests, perhaps it would be better if the forest boundary was finally settled one way or the other.

SECTION VI.

General Remarks.—During the year confiscations amounted to 357 cubic feet of timber, 80 maunds of bark, 5 tons 18 cwt. 54 lbs of fuel. The gross amount realized on these sales was Rupees 122-4-9; the amount of contingent expenses to be deducted therefrom was Rupees 41-13-7, leaving a net sum of Rupees 80-7-2 which was credited to forests. The offences tried before the Magistrate were few and unimportant, viz., four in Trinomallay Taluq and same in Gingee Division. Of these cases only three obtained conviction, others released. With the small establishment of peons available, I found it against the interest of conservancy to prosecute before the Sub-Magistrates cases in which they were witnesses, and generally decided the matter departmentally by confiscating the illegal removals. The amount of timber supplied to Public Works Department was 115 cubic feet; for this cash payments were made; consequently has been included with ordinary depôt sales. The new works under forest conservancy undertaken in the year were Chengum anicut plantations commenced in October 1872 Gungavarum reserve conservancy; commenced in June 1871 Padepallum reserve plantations, Periamoor ditto, Siroovady ditto, Cottamangalum ditto, and Peringalathoor reserve conservancy; and since the 1st October 1872 (the re-organization of the department) two large local conservancy plantations were formed under my charge in Trikalore Taluq; four plantations on the coast were taken over, besides several detached topes and nurseries, channel-bank and tank-bund plantings; sites were selected for large local conservancy plantations to be carried on in the ensuing year under supervision of the forest officer. The health of the establishment has been wretched throughout the year. Forest peons had to leave their duty constantly from fevers; the forester was ill for months, and had to take sick leave (this officer has since died); the gumastahs in charge of depôts had to be repeatedly changed; fever and diarrhœa preventing them from doing their duty. Felling operations were checked by wood-cutters objecting* to stay in the fever jungles, as they termed them, for any length of time. Two peons were permitted to resign; they† were so emaciated and weak from attacks of fever. The pygust was reduced two grades for not reporting himself until after two months had elapsed beyond the date given him, he having been sent on special duty to forests (to collect specimens for the Vienna Exhibition), and one gumastah was suspended for two months for neglect of duty; otherwise the conduct of the whole subordinate establishment was fair. The old timber shed at Chengum depôt fell down, and a plot of land was taken over in January 1873 for forming a new timber depôt at Tindevanum. The total casualties reported as occurring in plantations during the year was 6,702, but I am of

* The seigniorage fees are also lower in this year from same cause.

† One man has not recovered to this day.

opinion that a larger number must have occurred, particularly during the last quarter of 1872-73. The largest trees of the planting of 1871 at Gingee reserves run from 10 to 20 feet in height, and are about 2 inches in diameter at base; the largest are *Acacia speciosa* (Kat-valai) and *Cassia fistula* (Mile-konne); the latter I find act admirably as nurses to the slower growing trees. Sanction was received in August 1872 for the establishment of two *gumastahs*, at 12 Rupees each per month, for the Deputy-Conservator's Office; this, though quite inadequate now to the wants of this office, was a great assistance to me then, for up to that time I could only occasionally obtain the services of the Overseer's (now forester) gumastah, there being only one other person in all the conservancy establishment in this district, namely, a timber depôt gumastah who was at all fitted for such work. I have made several applications for an increased office and conservancy establishment, and even on this occasion beg to urge the necessity of the measure.

I have the honour to be,
Sir,
Your most obedient servant,
(Signed) H. L. WOOLDRIDGE,
Deputy-Conservator of Forests.

AGUSTIARPULLEY, TRITRAPOONDY,
10th July 1873.

No. 243.

From

The Hon. D. ARBUTHNOTT,
Collector of Tanjore,

To

J. GROSE, Esq.,
Secretary to the Board of Revenue, Madras.

SIR,—Adverting to the Proceedings of the Board of Revenue, dated 8th May last, No. 746, (Forest No. 21), calling for a report on the administration of forests for 1872-73, I have the honour to state that the Forest Establishment was working in this district only from October 1872 to February 1873. During this short period nothing was done by the Forest Department beyond selecting two sites for plantations in the villages of Naduvur and Kollangarai near Tanjore, planting varieties of seeds, and forming seed and nursery-beds. These sites are Government waste lands situated within ten miles of the railway, and the soil is red and sandy and fit for raising trees for fuel.

2. The Forest Establishment consisted of—

An Overseer, at Rupees 130 per mensem (including fixed batta).

A Gumastah, at Rupees 12, and two Peons, at 7 Rupees each per mensem.

3. This was, however, in communication with my predecessor, Mr. Cadell, withdrawn by the Inspector of Forests at the end of February 1873, as reported in my letters noted in the margin.

No. 124, dated 8th April 1873.
„ 289, „ 1st July „

In order, therefore, to supervise the fuel reserves that were formed in the villages of Naduvur and Kollangarai, a Maistry was appointed, with the sanction* of the Board, on a salary of Rupees 15 per mensem, to be paid from the Jungle Conservancy Fund. The services of the Maistry have been placed under the immediate superintendence of the Deputy-Tahsildar of Vullum. No effort is being spared to maintain and improve these jungle plantations, and the seedlings and nursery-beds are reported to be in a thriving condition.

* *Vide* Board's Proceedings, dated 3rd May 1873, Miscellaneous Forest No. 91-2,683.

4. Considering the short period during which the Forest Establishment was at work, I have not called for any report from the forest officer, as required in paragraph 3 of the Proceedings

under reference. I beg, however, to annex a memorandum showing the charges incurred on account of the Forest Department during the year under report :—

—	Permanent Establishment.	Temporary Establishment.	Contingent.	Total.
			RS. A. P.	RS. A. P.
1872, October	142	...	54 10 0	196 10 0
,, November ...	142	...	9 14 6	151 14 6
,, December ...	142	...	53 1 9	195 1 9
1873, January	142	20	27 0 10	189 0 10
,, February ...	142	20	28 2 0	190 2 0
Total...	710	40	172 13 1	922 13 1

I have the honour to be,
Sir,
Your most obedient servant,
(Signed) D. ARBUTHNOTT,
Collector.

No. 94.

OFFICIAL MEMORANDUM.

THE Collector of Trichinopoly has the honour, with reference to the Board's Proceedings, Forest No. 21, of the 8th instant, to forward the accompanying copy of the report furnished by Mr. Morgan, Deputy Conservator, now on leave, on the administration of Forests in this district during the past official year 1872-73, together with a copy of his own remarks thereon. He has nothing further to add at present on the subject.

TRICHINOPOLY,
28*th May* 1873.

(Signed) J. B. PENNINGTON,
Acting Collector and Conservator.

To the Secretary to the Board of Revenue.

[ENCLOSURE 1.]

OFFICE OF DEPUTY CONSERVATOR OF FORESTS,
TRICHINOPOLY, *7th April* 1873.

From

R. W. MORGAN, ESQ.,
Deputy Conservator of Forests, Trichinopoly and Tanjore.

To

J. B. PENNINGTON, ESQ.,
Acting Collector and Conservator of Forests, Trichinopoly.

SIR,—I have the honour to submit the Annual Administration Report for the Trichinopoly and Tanjore Plantations, with the usual accounts accompanying, for the official year 1872-73.

2. I was absent on sick leave at the commencement of the official year. I returned to my Range on the 4th July and was almost immediately transferred to Nelambur. I returned from Nelambur and took over charge of my district on the 4th January from Mr. Hadfield.

3. The plantations, five in number, viz., Elamanore, Kulitalai, Talapetai, Chithalavai, and Kutlai, were repeatedly visited by me. I also made a tour through my district and carefully inspected the whole of the Putchamullays. The Negapatam Plantation (abandoned as unsuitable by Lieutenant Williams) in the Tanjore District was also visited and arrangements made with

Mr. Betts, Agent and Traffic Manager, for a supply of railway fuel. Several blocks in the Tanjore District and at Nungapoorum, in the Trichinopoly District, were inspected, and arrangements for obtaining the blocks in the Trichinopoly District are being made.

A.—Plantations of the Trichinopoly District.

No. I., Elamanore.—Almost the whole of this block has been planted up. 69,160 pits were dug and planted with different sorts of plants, viz., Casuarina, Inga dulcis, Acacia Arabica, Albizzia Lebbek, Acacia leneoplia, and Acacia amara. 18,582 casualties were replaced with different plants, and 694 beds were formed and sown with different seeds. 4,103 lineal yards of permanent fence and 1,710 yards of temporary fence were constructed; four wells were sunk and completed with the erection of pecotta, &c., and one store-hut was built; 349 measures of different seeds were collected; 100 plants placed in baskets were supplied to the Central Jail; 236 pits were dug and kept ready.

The Casuarinas planted in a stiff clay soil, and the Acacia amara planted in a wet sandy soil, as might have been expected, all proved failures; the rest of the plants in the block are in a thriving condition, some of the Casuarinas (two years old) being fifteen feet high with a diameter of 3½ inches. The Inga dulcis is also in a most thriving state (some being fifteen feet in height with a diameter of four inches). There have been a great number of failures owing to the heavy floods, which covered the plants for six or eight days and from three to four feet deep. The expenditure of this plantation is Rupees 2,400-13-8 and Rupees 493-5-8 for salaries.

No. II., Kulitalai.—The plants, on the whole, are in a thriving condition, averaging two feet in height. The same difficulty and loss of plants from floods was experienced here as at Elamanore. Thirty-eight acres were felled and 38,610 pits were dug and planted, viz., 650 with Inga dulcis, 700 with Tamarindus Indica, 3,825 with Casuarina, 31,645 with Acacia Arabica, 1,640 with Melia Azaderachta, and 150 with Albizzia Lebbek. 2,200 casualties were replaced with different plants, and 124 beds were formed and sown with different seeds. 3,286 lineal yards of temporary fence and 1,370 yards of permanent fence were finished, and 969 trees were pruned. 189 measures of different seeds were collected. The expenditure of the plantation during the year amounts to Rupees 1,745-10-11, of which Rupees 332-7-10 are the salaries of the establishment.

No. III., Talapetai.—Several of the Babool trees that had reached a fair size were felled, and the cost of felling, lopping, etc., amounted to 6 Annas per cubic yard. This plantation deserves more the title of a fuel reserve than plantation. 27,765 pits were dug and planted with Acacia Arabica and Inga dulcis; of the latter there were only 300 planted. 1,660 casualties were replaced with Acacia Arabica, and 2,821 trees were pruned. 4½ acres of land were cleared, and fifteen beds were formed and sown with different seeds. 437 measures of different seeds were collected. The total expenditure for this plantation has been Rupees 841-14-4, of which Rupees 555-10-3 has been incurred for working charges and Rupees 296-4-1 for salaries.

No. IV., Chithalavai.—This plantation seems to me the best of all our plantations and the one most likely to succeed in a pecuniary point of view. The plants are very regular and average in height two feet. This block was originally open, and we had no thorny jungle to get rid of. 41,706 pits were dug and planted with Acacia Arabica and 7,900 casualties were replaced. 188 beds were formed and sown with Acacia Arabica, and 300 lineal yards of temporary fence and 1,684 of permanent fence were constructed. 191 measures of different seeds were collected. The expenditure on account of working charges is Rupees 738-8-10 and that of establishment Rupees 293-3-7, making a total of Rupees 1,031-12-5.

No. V., Kutlai.—This plantation is very sandy and is only fit for Casuarina. It is four miles from the Railway Station and a mile and a half from the edge of the line. The plants average one foot in height. 21,350 pits were dug; 20,730 were planted with Acacia Arabica, 350 with Casuarina, and 270 with Melia Azaderachta, with the replacing of 13,100 casualties. 332 beds were formed and sown, and 1,330 trees were pruned. 3,700 lineal yards of temporary fence and 3,324 of permanent fence were constructed. Sixty measures of different seeds were collected. Rs. 815-5-3 for working charges and Rupees 278-7-5 for establishment, aggregating Rupees 1,093-12-8, are the charges of the plantation during the year under report.

License and Voucher Forests.—As mentioned in a former portion of my report, the whole of the Putchamullays have been thoroughly explored and a report on them communicated to you (*vide* letter, No. 253, dated 5th February last).

Financial Result.—Rupees 394-4-0 by the sale of brushwood removed from the plantations at Elamanore and Kulitalai, and Rupees 20-12-0 by the sale of minor forest produce at the former plantation, and Rupees 74-2-0 by miscellaneous receipts at Elamanore, Kulitalai, and Chithalavai Plantations, aggregating a sum of Rupees 489-2-0, was realized during the current year.

General Remarks.—The above five plantations were watered throughout the year except during the rainy season ; there was also weeding, reclearing, cutting creepers, and thinning the nurseries as many times as requisite. A great mass of prickly-pear has been cleared from the Cutlay and Chithalavai Plantations.

Fencing of the Tanimalay Reserve at Manaparay has been repaired at a cost of Rs. 198-4-0, and the cost of supervision amounted to Rupees 341-6-6.

An Overseer of the Madura Range has been paid from this Treasury up to the amount of Rupees 550 in this year.

A Sub or Assistant Overseer is requisite for the Trichinopoly Plantations and Reserves, and he ought to be allowed a free pass on the railway, or mileage. There is now a Maistry, Maria Pillay, who does the duty of the above-mentioned grade, and a Maistry, Soondrum Iyer, who acts as Writer. There is no Writer attached to the Range although there is work enough for one.

The total charge of the district amounts to Rupees 15,041-11-7, as particularized below while the revenue is but Rupees 489-2-0, showing a deficit of Rupees 14,552-9-7 :—

	Rs.	A.	P.
The expenditure on account of different Plantations	6,363	3	9
Pay and travelling allowance of the Establishment under Working Charges	1,255	13	7
Mileage of the Establishment under Working Charges	437	15	0
Miscellaneous	128	7	3
Total ...	8,185	7	7

Health of the Establishment.—Good.

Conduct of the Subordinates.—Good on the whole, with the exception of one, Ramasawmy Naidoo, Maistry, who was dismissed for taking bribes.

I have the honour to be,
Sir,
Your most obedient servant,
(Signed) R. W. MORGAN,
Deputy Conservator of Forests.

[Enclosure 2.]

Proceedings of the Acting Collector and Conservator of Forests, Trichinopoly, under date the 8th May 1873.

Read report from the Deputy Conservator of Forests, Trichinopoly.

In future the Deputy Conservator will submit a statement showing the *total* expenditure on each plantation up to date *including the cost of all establishment rateably*, except that of the Deputy Conservator himself, and the cost of *each tree* planted, up to date.

2. Every effort must be made to complete the *permanent* fencing of each plantation.

3. Casuarinas should never be planted in any but the lightest soil, and care should be taken not to put down plants of any kind till the first heavy freshes are over.

4. In the absence of a Deputy Conservator the Head Assistant Collector will be requested to send in a weekly statement showing the progress made in felling the Talpot padugay.

5. The report on the Putchamullays will be disposed of separately.

6. The question of the payment of the Madura Overseer is still under discussion, as is the question of establishment to be employed. In future the accounts of the department will generally be kept in the Collector's office and all salaries will be paid at the Taluq Treasuries, coolies only being paid by the Deputy Conservator, whose duty will thus be confined to inspection and actual conservancy work.

(Signed) J. B. PENNINGTON,
Acting Collector and Conservator of Forests.

MADURA COLLECTOR'S OFFICE,
CAMP DINDIGUL, *4th August* 1872.

No. 251.

From

W. McQUHAE, ESQ.,
Collector of Madura,

To

J. GROSE, ESQ.,
Secretary to the Board of Revenue, Madras.

SIR,—I have the honour to submit the report of the Deputy Conservator of Forests on the administration of Madura Forests during the year 1872-73, with Statements A to E, prepared in the prescribed forms.

2. The receipts from forest during the year amounted to Rupees 16,010, and the expenditure to Rupees 20,006, leaving a deficit of Rupees 3,996. The income of the year exceeded that of the preceding year by Rupees 1,353, and including the difference of value of stock in hand, the year's operations resulted in a small surplus.

Expenditure.	Receipts.	Difference in value of stock.	Surplus.
RS. 20,006	RS. 16,010	RS. + 3,998	2

3. The expenditure exceeds that of the preceding year by Rupees 8,005 in consequence of more extended operations chiefly under the heads "Timber expenses" and "Plantations." During the preceding year the Deputy Conservator drew no allowance in Madura, and this accounts for a difference of Rupees 2,380. No expenditure was incurred on Fuel Reserves during the preceding year, while in the year under report the expenditure on them was Rupees 1,074.

4. Fuel Reserves near the Railway were selected, fenced, and conserved during the year, and the Teak plantations in Periacolam and Pulney Taluqs were extended. A considerable number of Australian trees were also planted on the Pulney Hills. The subject of free felling, about which so much has been written in previous years, has received much consideration. The difficulties connected with this point are confined almost entirely to the Periacolam Taluq, where the ryots have always been accustomed to obtain a very liberal supply of wood without payment.

I have the honour to be,
Sir,
Your most obedient servant,

(Signed) W. McQUHAE,
Collector.

[Enclosure 1.]

Office of Deputy Conservator of Forests,
Madura, 16*th June* 1873.

From

R. WILLIAMS, Esq.,
Deputy Conservator of Forests, Madura.

To

W. McQUHAE, Esq.,
Collector of Madura.

Sir,—I have the honour to submit the Administration Report of the Madura Forests for the Official year 1872-73.

SECTION I.

2. *Inspection tours of the Officer in charge.*—During a greater part of the year I was engaged in inspecting the different plantations in the Trichinopoly District, and in selecting and reporting upon sites for plantations both in Trichinopoly and Tanjore, but of the charge of both of these districts I was relieved in January last, as stated in the Proceedings of Government, No. 1,186, dated 9th August 1872. I spent 3½ months in inspecting the different forests, the Railway Fuel Reserves, etc., of this district, and I was also obliged to remain in my Head-quarter in aggregate for 3½ months attending office work, and during March from ill health.

SECTION II.

Reserves.

3. A. *Reserved Forests.—Operations and contemplated, ditto.*—The reserved forests of Periacolam, and Pulney are worked departmentally through Contractors, who fell timber selected by the Officers of the Department, and deliver it at the depôts. The quantity of timber brought to the various depôts of the Periacolam Range during the year under review was 7,716 cubic feet, as shewn in the Statement B appended. In addition to this there are 10,299 cubic feet, valued at Rupees 11,860, were of the old stock remaining on hand at the end of the official year 1871-72. Sales during the year amounted to 3,108 cubic feet, realizing a sum of Rupees 4,096, as shewn in Statement C appended. A balance of 14,891 cubic feet of timber in hand valued at Rupees 15,858 is shown in Statement D appended.

4. B. *Fuel Reserve—Operations, and contemplated, ditto.*—The Punjunthanghy Hills, Meenakaradu, and part of the Seroomallays are reserved for the supply of fuel to the Great Southern India Railway extension. Of the above, the Seroomallay portion is being demarcated by running a path round it. The Meenakaradu, and Punjunthanghy have been enclosed by fencing. The trees in them look flourishing. The sums expended on the above reserves are as follows:—

Description of reserves.	Expenditure in this year.		Total expenditure including previous year.
	Amount expended for fencing, etc.	Amount for establishments.	
	Rs. A. P.	Rs. A. P.	Rs. A. P.
Punjunthanghy Hills, and	545 4 0	312 12 0	858 0 0
Meenakaradu			
Seroomallay	.....	216 5 1	216 5 1
Total ...	545 4 0	529 1 1	1,074 5 1

5. C. *Plantation operations, and contemplated, ditto.,—Plantation No. I. Vannathiparai.*—In this plantation 450 pits were dug, and 450 seedlings put out during the year. There

were 2,805 Teak trees at the end of last year planted in 1869-70, 1870-71, and 1871-72. Altogether 3,255 Teak trees are in good condition. There are also 460 young Teak plants in the nursery for transplanting. The expenditure for this plantation during the year amounts to Rupees 278-1-6, and the total from the commencement up to 31st March 1873 to Rupees 1,015-13-1. Out of 3,255 trees, as stated above, twenty trees measure 31 feet in height and have a girth of 12 inches, thirty trees measure 23 feet in height, and 13 inches in girth, fifty trees measure 24 feet in height, and 11 inches in girth, thirty trees measure 20 feet in height and 10 inches in girth, thirty trees measure 13 feet in height, and 7 inches in girth, and 3,095 trees measure below 12 feet in height, and 9 inches in girth, ¼ Acre of Jungle land has also been cleared to extend the planting operations.

6. *Plantation No. II. Kodikanel.*—This plantation has been sub-divided into (A) Acacia and (E) Eucalyptus. One thousand nine hundred and twenty pits have been dug, and 3,657 seedlings, viz., 1,202 Acacia, and 2,455 Eucalyptus planted out during the year. There are now 2,775 Acacia, and 4,255 Eucalyptus trees in the two plantations including the trees planted in 1870-71, 1871-72, and 1872-73. One hundred and forty-five Eucalyptus and Acacia seedlings are ready in the nursery for transplanting. Ninety-four casualties occurred among the Acacias during the year, and 413 among the Eucalyptus. Two hundred and eighty-six of these were attributable to the neglect of the Overseer Rengiah Naidoo, and he has been fined Rupees 10 on this account. The expenditure during the year has been Rupees 555-14-0, and the total from the commencement up to 31st March 1873, Rupees 1,561-5-2. In the Acacia plantation seventy trees in average measure 10½ feet in height, and 7⅛ inches in girth, twenty trees measure 9¾ feet in height, and 5 inches in girth, fifty trees measure 8¾ feet in height, and 5 inches in girth, and 2,635 trees measure below 7 feet in height, and 3½ inches in girth, and in the Eucalyptus plantation twenty trees in average measure 28½ feet in height, and 14¾ inches in girth, thirty trees measure 26½ feet in height and 13 inches in girth, forty trees measure 21 feet in height, and 9¾ inches in girth, and 4,165 trees measure below 14½ feet in height, and 9¼ inches in girth. Three-quarter acre of Jungle land has been cleared to extend the plantations.

7. *Plantation No. III. Pulney.*—In this plantation 2½ Gulies of jungles have been cleared, 1,000 pits dug, and 1,000 trees planted during the year. There are now 2,112 trees in the plantation planted in 1870-71, 1871-72, and 1872-73. Three tree casualties occurred, and the remaining are in good condition. The expenditure during this year has been Rupees 158-11-0 and the total from the commencement up to 31st March 1873 Rupees 393-7-5. Of 2,112 trees which are in the plantation, as stated above, four trees measure in average 31¼ feet in height, and 12½ inches in girth, ten trees measure 23½ feet in height, and 11½ inches in girth, twenty-two trees measure 23 feet in height, and 10½ inches in girth, thirty-six trees measure 15 feet in height, and 10½ inches in girth, and 2,040 trees measure below 10¾ feet in height, and 7¾ inches in girth. Two hundred and thirty seedlings are also available in the nursery for transplanting. The soil of this plantation seems to be very good. I am therefore inclined to extend it.

SECTION III.

8. *License and voucher forest operations and contemplated, ditto.*—Under this system the out turn of this district has been 44,361 cubic feet of timber sold for Rupees 2,345, 3,234 tons of firewood sold for Rupees 7,246, 732 cart-loads of charcoal sold for Rupees 732, 2,127 bandy-loads of bamboo sold for Rupees 2,214, and under the heading Miscellaneous we realized Rupees 501-11-8, deducting 10 per cent. commission paid to Nattamgars. This leaves as a net result Rupees 16,010. It will be seen that the revenue of this district is increasing year by year.

SECTION IV.

8. *Yield of Forests.—Expenditure on felling and carting, etc.*—A sum of Rupees 10,000 has been sanctioned in the budget on account of these operations, which was found insufficient, and an application was made for an additional sum of Rupees 2,000, and sanctioned—*vide* Board's Proceedings, No. 65-1,788, dated 24th March 1873. Out of the above sums Rupees 10,562 were drawn from the Treasury as an advance, and Rupees 1,313-0-5 included in them on account of the

cash balance (viz., Rupees 89-15-8 in cash and Rupees 1,223-0-9 in outstanding) which was in hand at the end of the official year 1871-72. From the total sum of Rupees 11,875-0-5, a sum of Rupees 10,391-15-9 has been expended in the way of timber felling, etc., as shown in the Statement A. appended, Rupees 7-1-0 being the actual cash in hand at the end of March 1873 were paid into the Treasury as ordered to be done in the Board's Proceedings, Forest No. 7, dated 13th February 1873, and a sum of Rupees 1,475-15-8 remains unaccounted for.

10. *Outstanding advances.*—Under this head little has to be said beyond the statement that there is a sum of Rs. 1,176-14-11 outstanding against the Ayagudi Zemin, which should be adjusted after the recovery of the sale proceeds of timber from Messrs. Campbell & Co. With regard to sundry minor items of advance, they will be adjusted in the course of a month or two.

SECTION V.

11. *Financial Results.*—The financial result of this year is as follows :—

	Amount.	Total.
Expenditure.	Rs. A. P.	Rs. A. P.
Pay of Establishments	9,117 2 4	
Working charges	10,562 0 0	
Office contingencies	496 13 3	
Total...	.....	20,175 15 7
Receipts.		
Sale of timber from Government Depôts	4,096 2 5	
Seigniorage	11,412 10 6	
Sale of confiscated timber	160 15 6	
Miscellaneous	340 12 2	
Add value of timber in stock	3,998 7 4½	
Total...	.....	20,008 15 11½
Balance against Government...	.....	166 15 7½
Value of timber on hand on the 31st March 1872, as per revised Statement	11,860 7 4	
Add timber felled during the year 1872-73	7,318 3 11	
Add on account of excess rate realized	792 10 8½	
		19,971 5 11½
Deduct timber sold in 1872-73	4,096 2 5	
Do. the value of cubical contents decreased in the re-measurement of certain timber	16 4 10	
		4,112 7 3
Balance on hand on the 31st March 1873...	.....	15,858 14 8½

SECTION VI.

12. *General Remarks.*—This district has been formed into two Ranges, viz., Periacolam, and Madura, the former contains the two taluqs of Pulney and Periacolam, and the latter the two taluqs of Madura and Meylur, and a portion in Dindigul Taluq. In last September an arrangement was made by desire of the then Conservator of Forests, in his letter, No. 1,021, dated 2nd March 1872, to grow fuel Reserves in Dindigul Taluq of this district and the Manaparai division of the Trichinopoly District into one Range, with an Overseer for the same. The charge of the Dindigul Taluq was, therefore, separated from the Madura Range. The valuable forests in this district lie only in Periacolam Range, and there also three Plantations have been established, as

mentioned in paragraphs 5, 6 and 7. From the Madura Range large quantities of fuel, and some Junglewood for the erection of thatched roofs were supplied to the town of Madura, and a large Revenue arises from this independently of the timber sales. The Dindigul Range forests, and hills are being reserved for the supply of fuel to the Railway, but little seigniorage has been levied in this taluq.

13. *Conduct of the Overseer and Subordinates, etc.*—Third Class Overseer P. Rungiah Naidoo was in charge of the Periacolam Range during the whole year, except a month when he was on privilege leave. N. Soobbien, Acting 3rd Class Overseer, was in charge of the Madura Range during the whole year, and I am on the whole satisfied with the way he has done his work. Junior A. Appavoo Pillai was transferred from Trichinopoly to Railway Fuel Reserve Range at the end of September 1872 when that Range has been formed, at that time he took a month's leave and in the remaining months of the year, he was in charge of the Range. Some twenty peons and two Sub-Overseers have been temporarily employed since the Allagheri Hills, Munja Mullay and other hills were transferred to the charge of this department, and they are not included in the permanent strength of the establishment. I have applied for sanction for their permanent entertainment, and trust this will be granted.

14. *Health of Establishments.*—Health has been generally good. A peon died in the Periacolam Range. The Establishments in the Manaparai division suffered a great deal from jungle fever.

15. *Detection of Forest Cases.*—One hundred and thirty-nine cases were detected during the year, out of which twenty-four cases were tried and convicted by different Sub-Magistrates. Fines, imprisonment both simple and rigorous, were inflicted, 111 cases were convicted by different village heads, three cases disposed of departmentally by confiscating wood, etc., and one case was discharged by one of the Sub-Magistrates for want of sufficient evidence.

I have the honour to be,
Sir,
Your most obedient servant,

(Signed) R. WILLIAMS,
Deputy Conservator of Forests.

Huzur Cutcherry, Tinnevelly,
5th June 1873.

No. 304.

From

R. K. PUCKLE, Esq.,
Collector of Tinnevelly,

To

J. GROSE, Esq.,
Secretary to the Board of Revenue, Madras.

Sir,—I have the honour to forward herewith my report on the administration of the Forest Department of the district during 1872-73.

2. The care of the forests was re-transferred to the Collector in October 1872, and immediate steps were taken to conserve to the best advantage the tract of hill-forest in which the streams on which the prosperity of this district depends take their rise.

1 Copy of Deputy-Conservator's Report.
7 Statements.

3. The flow of the largest of these streams on the hills is at the outside from 20 to 30 miles, but it is about 70 miles on the plains. On the hills these streams yield nothing at all, but

in the plains they yield Government ten lakhs of rupees per annum. If the Government have an annual interest of ten lakhs of rupees in these streams, it may be fairly assumed that the water supply is worth twice that amount to the ryots, and that thirty lakhs per annum is a low estimate of the value of this water supply. Now the net forest revenue is about Rs. 3,400,—a value less trifle as compared with the water supply of even a single village, but on the forest depends this supply, and the very existence of the forest depends on the officers placed in charge. Unfortunately for a series of years the Forest Department made the taxation of charcoal and firewood and the sale of forest-products their principal object, and overlooked the necessity for the strict conservancy of particular tracts for imperial purposes.

4. The forests on which our streams depend were consequently thrown open to charcoal-burners and firewood-cutters. Any one who obtained a license might cut and hack as he pleased, and, of course, he selected the well-timbered banks of the streams. Hundreds of people were let in to strip certain trees of their bark, or dig them up for their roots, or burn or cut them for the honey that might perhaps hang from their boughs, and as much damage was done as could be done under a system that gave full scope for mischief and provided no efficient check. All this I endeavoured to rectify. I selected the particular tract of hill-forest in which our rivers rise, and, marking off spurs and slopes sufficient for the wants of each village at the foot of the hills in the matter of grazing and firewood-cutting, prohibited entry into the black forest above, and placed the conservancy under the control of the Tahsildars of Ambasamudram and Tenkasi, substituting them for the irresponsible Sub-Overseers of the Forest Department, and requiring them to act as the Deputy-Conservator's Lieutenants in this particular tract, and make arrangements with the village-officers for using only the spurs assigned. Thus, along some 30 miles of hill-side we have numerous blocks allotted as the grazing ground and firewood jungle of a dozen villages on the plains, and these village pastures and jungles are watched by village kavalgars, who see that the limits assigned are observed, and who are paid from Jungle Conservancy. The Forest Department is thus free to exercise general control over departmental timber-felling in the forest above, and to make such revenue as can be made from all sources in the 70 miles of hill-forest that need not be specially reserved. Fortunately, the demand for timber is small; the centerings of the Palamcottah and Ambasamudram bridges that have been offered for sale have glutted the market this year, and the Travancore Government and Zemindars easily under-sell us. Thus, there is but little need for felling in the forest at the source of our streams, and if it is borne in mind that departmental felling, hauling, and depôt sale, is a losing transaction, and that the area reserved is in length but one-third of our hill-range, it may be conceded, I think, that it is unnecessary to fell there at all.

5. The system of felling on license is now abandoned throughout the range, except in the case of persons taking out licenses to cut timber for building purposes, and the forest is thus dealt with more tenderly. The licensed search for barks, roots, dyes, fruit, and other forest-products is, I think, objectionable, unless restrained within particular limits, and the charge for each head-load of firewood (cut within or without the limits assigned for firewood-cutting) is, I think, a hardship that should be abolished. Each village at the foot of the hills (the hills themselves are uninhabited) should have its firewood jungle and grazing ground, and in these, under certain restrictions, the villagers should do as they please. I wished to carry out this reform, but as this was the main source of revenue to the Forest Department, I thought it better to wait till the Board should pass general orders.

6. Besides the hill forest reserve, we have fuel reserves scattered about the plains mostly within five miles of the railway; these are usually the beds of tanks in which the Babul grows spontaneously. The Deputy-Conservator calculates that he has a lakh of trees fit for cutting, a lakh and-a-half coming on, and any number of seedlings. The system of conservancy is very simple. A little fencing near thoroughfares and a watchman told off to each tank is all that is needed to ensure the quick growth of the trees. Whether the Railway Company will find it worthwhile to purchase this fuel at market rates is at present an open question; but whether or not, the country is benefited by the extension of the production of fuel.

7. There is hardly work sufficient for a separate Overseer for these reserves ; he is, therefore, employed to look after adjoining plantations kept up from Jungle Conservancy, and his pay might well be divided between Forest and Jungle Conservancy, instead of being debited solely to Forest as at present.

8. The Deputy-Conservator complains of the difficulty of preventing the smuggling of forest-products. Leasing out these forest-products at all seems to me contrary to the spirit of Government Proceedings, No. 240, dated 1st March 1873, abandoning such like rents in the Revenue Department, but as our hills are uninhabited no rights are infringed by the lease.

9. Judging from the Map recently furnished by the Collector of Madura, nearly all the hills that have hitherto formed part of the Strivilliputtur Taluq of this district, some 15 miles in length, have been transferred to the Saptur Zemindari. As, however, I understand that the area claimed by the Zemindar is but six square miles, it would be well to take advantage of the Survey Party being engaged in the Madura District to have the forest boundary between Tinnevelly and Madura surveyed.

10. The receipts for the year under report were Rs. 16,820, and the expenditure Rs. 13,428, leaving a net balance to credit of Rs. 3,392.

11. The Public Works Department was supplied with Rs. 357 worth of timber, which was debited without payment to that department.

Appavu Pillai, an Overseer, died while absent on leave, and several subordinates had to be removed for misconduct.

I have the honour to be,
Sir,
Your most obedient servant,

(Signed) R. K. PUCKLE,
Collector.

[Enclosure 1.]

Office of Deputy-Conservator of Forests,
Palamcottah, 20*th May* 1873.

From

W. C. HAYNE, Esq.,
Deputy-Conservator of Forests, Tinnevelly,

To

R. K. PUCKLE, Esq.,
Collector of Tinnevelly.

Sir,—I have the honour to submit my Accounts and Administration Report of the Tinnevelly forests and fuel reserves for the official year 1872-73.

2. The forests in the five hill taluqs of Tinnevelly have been visited by me, some twice and the more important ones oftener. The forests above Singampatti have also had my attention.

SECTION I.

3. Nearly nine months, or 264 days, out of a year of eleven months (the twelfth month I was away on privilege leave) were spent in circuit, and the remainder of the time at head-quarters.

SECTION II.

4. *A.*—All the forests are under reserve. Felling has been carried on to a very small extent, and that which took place was chiefly the execution of indents from the Public Works Department.

5. *B.*—One tank-bed after another has slowly been added to the fuel reserves, and kavalgars appointed to watch them, of whom there are now twelve, and they are under the charge of two

Maistries. Three tank-beds have been added during the year, making on the whole eleven reserves, and aggregating about 790 acres.

6. Nine of the reserves were sown broadcast and two ploughed up and sown, thus causing the whole of the area to have been brought under cultivation. The seedlings have sprung up remarkably well and thickly, but whether they will all live remains to be seen. The season has been a very favourable one for their growth, having had rain at short intervals. About 107 bushels of Babul seed were sown throughout the year.

7. There are 100,000 trees ripe for felling, representing 63,839 tons of wet or green wood, which is equivalent to 47,098 tons of dry wood. This reduction in weight may, I think, be relied on, as Mr. Theobald, at my request, cut down two trees of ordinary size which weighed when green 2,862½ lbs. and when dry 2,110 lbs., thus losing about 25 per cent. in weight. There are another 150,000 trees of fair size, a large number of which will become ready for the axe each consecutive year.

8. I hope by next year to have ascertained all the available land for railway fuel purposes, and to bring a large portion, if not all, under cultivation; this, however, will depend on the time required to be devoted by the forester to jungle conservancy works, for it will be seen from his report, No. 270, dated 6th January 1873, submitted to you, that his chief time has been given to jungle conservancy purposes, though especially appointed to take up and look after fuel reserves. I hope also to get a large number of the reserves carefully demarcated and their accurate areas ascertained.

9. A sum of Rs. 1,102-10-9 has been spent on conserving the reserves, but to arrive at an accurate conclusion of the actual cost of conservancy, including purchase of seeds, etc., the charge of Rs. 324 for office establishment should be deducted, which gives Rs. 778-10-9, as the actual conservancy expenditure.

Vide Statement B.

10. *C.*—There are no plantations on hand, but I invariably give the two abandoned ones a look when in the vicinity, to see how the surviving plants are thriving through choking weeds and grass and with no attention. I can find no plants alive in the plantations at the lower elevation as might have been expected, having had no attention and being left to the mercy of weeds and weather; but those at the higher elevation at Polaru, planted at the foot of some kumari cultivation, are doing very well, though they have not shot up as rapidly as I anticipated, but they have added to the thickness of their stems considerably. There were a very few casualties, which augurs well for the planting up of the abandoned kumari land with good and useful timber trees.

SECTION III.

11. The license and voucher system has, I am glad to say, been discontinued for reserved timbers, but it is still in force for the removal of junglewood for building purposes; this I, however, was about to abolish with your approval at the commencement of the year by cutting and supplying the wood departmentally, but the Board of Revenue disapproved of the proceeding and requested you not to carry out the measure.

SECTION IV.

12. Only 593-9-3 cubic feet of timber have been felled and brought to the depôts this year. To supply the demands of the Public Works Department 204-0-7 cubic feet were felled, and the remaining quantity is what was felled about the close of last official year, but not brought down from the forests in time to be reckoned in with that year's accounts.

Vide Statement E.

13. Timber to the amount of 2,280-0-7 cubic feet have been sold realizing a revenue of Rs. 3,452-9-10.

14. There has been a very poor demand for the depôt timber, owing no doubt to the following causes:—Our high sale rates, the rapid deterioration from exposure to sun and weather, and also to the great influx of Travancore timber, which is both cheaper and of far superior scantling

than we are able to produce, as the Travancore Government are able to employ elephant labour and carts to convey it to the plains.

15. The Puliari pass or ghaut in the Tenkasi Taluq, leading to the Travancore territory, has so far advanced during the past year that timber can be brought down it freely, and in consequence large supplies are being sent down, and periodical auctions held for the sale of it at Puliari.

16. Though we are deriving but little revenue by the sale of our timber, yet it must be borne in mind that in an indirect way we are reaping an advantage by the further conservation of our forests.

SECTION V.

17. The state of the finance is good, for though there is a large decrease in the revenue realized in comparison with the last two years, yet the profit is slightly on the increase. It must be remembered that since the re-organization the increase of salary and travelling allowance to the Deputy-Conservator has tended greatly towards swelling the expenditure, also the up-keep and opening out of fuel reserves, which bring in no returns at present, is a source which runs up the total expenditure.

18. The profit realized is Rs. 3,391-6-3, to which if the value of timber in store at the various fixed rates per cubic foot be added, will represent a profit of Rs. 16,067-6-8 ; this latter figure, however, should not be accepted, as I purpose making a reduction in the sale rates, with your approval, in the current year, which will at once nullify the accuracy of the above total, and also render the valuation at foot of Statement E as incorrect

Vide Statements A, B, C, and E.

SECTION VI.

19. Since the collapse of the department in October 1872, several alterations have taken place in the management of the forests. A large and important tract of forest lying partly in the Ambasamudram and Tenkasi Taluqs has been withdrawn from the control of the Forest Establishment, and the conservancy is being carried on, on a different system to that in vogue in the other forests, and the expense debited to Jungle Conservancy Funds.

20. The system pursued has been that of excluding the access of natives to the hills, except to certain spots which have been marked out for the grazing of cattle, cutting of jungle-wood, firewood, and agricultural implements, etc.

21. The same steps have been taken with regard to the forests above Singampatti.

22. The sanctioned Forest Establishment formerly employed on this tract, which I have termed the Tambrapurni Range, have been distributed over the remaining forests.

23. Judgment has been passed on the disputed boundary case between the Saptur Zemindar and Government, and has been given in favour of the Zemindar ; but the land to be awarded to him in the sketch map of the Acting Collector of Madura, as far as I can ascertain, *far* exceeds the area comprised within the boundaries mentioned in the plaint, and which again is much in excess of the area (6 square miles) claimed in the same plaint.

24. No steps have been taken to demarcate the boundary which should, I think, be done with the least possible delay, to prevent further and subsequent encroachments, and that the rightful area of land only may be made over to him.

25. *Forest-produce.*—I have been much disappointed in the sale of the Cardamom produce this year for which there has been a slack demand and the prices offered very low.

26. It sold for only half the price it realized the previous year. The amount realized was Rs. 1,243-12-0.

Vide Statement A.

27. One cause of there being no demand may, I think, be attributed to one Maruthappa Tevan of Ambasamudram, Tinnevelly District, having taken a contract to furnish the Travancore Government with a certain quantity of Cardamoms from their hills, thus giving him the opportunity of bringing a large quantity, clandestinely or otherwise, into the Tinnevelly District, and disposing of it at a very moderate sum and thus commanding the market.

28. Since the re-organization the forest-produce have been farmed out in four of the forest taluqs at very successful rates, amounting altogether to Rs. 7,197 ; but this amount I hardly anticipate realizing again in a subsequent year.

29. *Discoveries.*—No new discoveries of importance have to be recorded, but the timber known by the name of "Shembagapalei" in this district, the true value of which up to a recent date has not been fully known, has been proved to be the *Vitex altissima*,—a timber tree of great value and much used in other districts (*vide* Inspector of Forests' letter, No. 1,619, dated 31st December 1872).

30. The District Engineer has been informed of the circumstance, and desired to make a wider use of it.

31. *Forest Offences.*—An abstract of forest offences is appended in a tabular form, showing a large increase of cases tried as compared with last year's report. This, I think, may, be viewed as the result of greater vigilance on the part of the forest officers than as an increase of crime.

There were 146 cases detected, in which 704 individuals were charged before the Joint Magistrate, the Sub-Magistrates, and Village Munsifs of the various forest taluqs, all of whom were convicted and punished.

32. *Health.*—On the whole, the health of the establishment has been good. I have, however, to report the death, on the 10th March 1873, of the Forest Overseer Appavu Pillai, one of the oldest officers of the department, and a valuable one, more, however, in the capacity of a clerk than an Overseer. He proceeded on four months' sick leave in September, and was relieved by Mr. Johnston.

33. *Conduct* —The conduct of the establishment in general I can only report as fair having had to dismiss three Sub-Overseers, one of whom was convicted of accepting bribes, and sentenced to one year's rigorous imprisonment.

I have the honour to be,
Sir,
Your most obedient Servant,

(Signed) W. C. HAYNE,
Deputy-Conservator of Forests.

COIMBATORE COLLECTOR'S OFFICE,
31*st July* 1873.

No. 156.

From

A. WEDDERBURN, Esq.,
Collector of Coimbatore,

To

J. GROSE, Esq.,
Secretary to the Board of Revenue, Madras,

1 Report of C. G. Douglas, Esq., of 16th June 1873, with 7 Statements for Anamallay Range.
1 Report of do. of 16th June 1873, with 7 Statements for Bolumputty Range.

SIR,—I have the honour to forward the Forest Administration reports of this district, and commence with that of Anamallay.

1. *Deputy-Conservator's Charge.*—The Deputy-Conservator's range extends to the Anamallay mountains generally ; but his special duties have been the working of the Teak forests at the western extremity situated at about 1,500 feet above the plains, or 2,500 feet above the sea. The Deputy-Conservator had also the forests of Bolumputty, due west of and in Coimbatore

District, as well as the Palghaut and Sholakeray forests in Malabar to look after, the withdrawal of which from his charge leaves him more time to devote to what is a sufficiently large range to be efficiently looked after.

2. Having made a personal inspection of the principal Teak and Rosewood forests under the Deputy-Conservator, I am in a position to record some remarks as to past and present operations; and in doing so I must accord credit to Mr. Douglas for a considerable improvement in administration which is not to be judged of by present but by future financial results.

3. *Aspect of Forest.*—On visiting these forests during the years 1871 and 1872, one could not fail to be struck with the enormous quantity of felled timber which had apparently lain for years in the jungle,—timber cut but not carried, timber which figured as stock asset, and of which the subsequent removal must be a net expense, without anything to show on the credit side. This explains the financial deficit.

4. *Present Working.*—If the subsequent operations of Mr. Douglas have been less showy, they have been more useful. We are removing to depôts, selling and getting rid of surplus and over-valued stock which has been in hand for years.

5. *Working Allotment.*—The subject next in importance is the amount to be allotted to this range for working expenses. There should be a certain sum and not a varying allotment. It requires the full energies of a man to work a forest to the best advantage, but if he is uncertain whether his working expenses may not be reduced by one-half, his calculations and arrangements are put out of year, and he cannot do justice to his work.

6. *Detail of Work.*—Now the essentials of conservancy are, first, the care of existing trees; second, the means of re-placing them; third, efficient and economical working of the forest. In order to conserve the trees I have written a separate letter* on the arrangements requisite, and given my views as to re-placement which, owing to the soil and climate, I would hold to be chiefly natural and not artificial.

* No. 186 of 2nd July 1873.

7. *Forest Access and Roads.*—The efficient working is the next item, and I was glad to find that opening the forest by roads was engaging Mr. Douglas's attention. As President of Local Fund Board, I shall advise improvement of the road to the foot of Tunicadavoo ghaut; in fact, an allotment for part of the distance has already been made; then the ghaut itself requires constant repair; it is a ghaut of 4 miles and 1,500 feet constructed by the late Captain Gosling for Rs. 5,000! but, of course, for that sum there are no stable bridges or revetments; each heavy rain makes the ghaut impassable. Ten times the sum spent by Captain Gosling will be required to give permanency to the road-way. I see no need of masonry bridges where timber is plentiful, but some outlay is indispensable in lieu of stream and ravine crossings made with brushwood and covered with split bamboo!!

8. *Working Stock.*—The next subject is the detailed working and the question of whether work is better and cheaper done with hired or purchased stock. It seems that Government elephants work economically; there is to be sure some risk of their illness, but they are exempt from the dangers run by cattle. The present system of, say, elephants with additional hired ones when business presses seems the best.

Government elephants profitable.

9. *Cattle Establishment doubtful.*—I cannot think that the carting stock has been well managed. Mr. Douglas, however, is not to blame for this, and he has reduced the establishment to order by keeping accounts. The stock consisted of 73 bullocks bought in 1866, 36 in 1869, 26 in 1870; total 135, at a cost of ... ... Rs. 7,056

The 40 carts cost Rs. 1,079, at 27 each; they cost Rs. 2,869 to repair, total ... ... ,, 3,948

Up-keep of bullocks, pay of drivers, etc. ... ... ,, 27,465

In 6¼ years, Rs. 38,469

10. The first record of one year's work done is in 1868-69 under Rs. 7,000, when subsequent accounts were kept they failed to show any less expense than contractor's rates, so that we have nearly 8,000 invested with annual deterioration at, say, ten per cent., and not more than paying its expenses, viz., about 5,000 annually of up-keep ; nearly half the bullocks are gone, which is a deduction of Rs. 3,466 out of Rs. 7,056, and the rest must have decreased in value since purchased, and can scarcely amount to the value of Rs. 3,590 as estimated by Mr. Douglas.

11. As, however, the sale of the present bullocks would be only a loss, I propose instructing Mr. Douglas to work on with the balance and to keep accurate comparative accounts of expense as regards contract cattle.

12. The general financial results of the reserved Teak forest, therefore, are herewith summarised.

Expense.		Receipts and Stock.		Net Result.
Gross Expenditure.	Receipts.	Deficiency.	Stock at close of year.	
Rs. 42,619	Rs. 11,649	30,970	137,571	162,261 = + 24,690 Net result — 6,280

13. The next subject is the forests under license and voucher system. The Deputy-Conservator has nothing to report on except the financial results, and says nothing as to the practical results in the forests in question.

14. This is a subject of very great importance, but apparently Mr. Douglas, with other urgent demands on his time, has not been able to report generally on the aspect of these, what may be termed, unreserved forests of the Anamallay Range. I have instructed him to visit and report the line of demarcation, which should be observed for the purpose of maintaining village fuel reserves, which, owing to the rapid spread of encouraged cultivation, are now rapidly disappearing or almost disappeared.

15. It is obvious that, unless fuel and communal forests are preserved from the axe of the cultivator, soon there will be none. The policy of my predecessors had been to encourage cultivation, and enormous blocks of land were disposed of with that view ; it was, however, rather a transfer of State rights to private persons. Within a quarter of a century cultivation has been carried to the very base of the Anamallay mountains, and I now propose to keep the rivers issuing therefrom as a boundary against further denudation. There is no planting to be compared with that of nature ; and if rest be given and trees not extirpated the full forest will revive.

16. What was once a dense forest,—the resort of elephants,—in the Anamallay plain is now a sheet of cultivation ; not a stick to be got that is not now private property. Viewing this state of things, I took the occasion when visiting the scene of a boundary dispute to suggest to Mr. Douglas the propriety of reserving the disputed tract if adjudged to Coimbatore as a village fuel reserve. It has been adjudged to Coimbatore, and I have instructed its being fenced as a reserve.

17. I agree with Mr. Douglas that each forest account should be kept separately. It is absurd mixing up the accounts of a reserved and departmentally worked Teak forest with general unreserved forest under other system of management. Mr. Douglas (paragraphs 9 and 10, Section III.) observes that, as the receipts were large from the license and voucher system, a more suitable establishment might have been provided. I do not think that the receipts have anything to do with the establishment which should be effective in any case. Any deficiency, however, when brought to notice will be at once supplied in the way of supervision.

18. A very important item in forest conservancy is the health of the department. In the strictest economical point of view, expense should not be spared on this point. The results of jungle fever are of such a serious nature to the individual, and the loss of experienced and responsible service so great to the State that no expenditure should be grudged in providing proper

accommodation. I regret to observe that a useful European Overseer has been obliged to be transferred. Had quarters been built for him in a high and airy spot instead of his inhabiting a low situated bungalow on the bank of the Anamallay river at the Anamallay town, I cannot help thinking that some source of disease might have been prevented, and I am by no means satisfied that the Tuniacdavoo water-fall is the best site for a jungle residence, though it has the great advantage of water in the working season.

19. I have pressed the selection of better sites and suggested the immediate construction of a suitable hut on the plains for the Overseer when not working in the forest.

20. In conclusion, I have to congratulate myself on having Mr. Douglas as a Deputy-Conservator. His good sense and judgment, as well as the interest he takes in his work, are a guarantee that the forest administration of Anamallay is safe in his hands.

I have the honour to be,
Sir,
Your most obedient servant,
(Signed) B. HORSBRUGH,
Acting Sub-Collector in charge.

P. S.—There is scarcely anything to note on the report of Bolumputty forests ; it is a mere account of collections ; no conservancy has been attempted. I have visited the locality, and given directions as regards future conservancy.

(Signed) B. HORSBRUGH,
Acting Sub-Collector in charge.

N.B.—This report was drafted by Mr. Wedderburn, but he left on leave before he could sign the fair copy.

(Initialled) B. H.

[Enclosure 1.]

Office of Deputy-Conservator of Forests, Coimbatore, 16*th June* 1873.

No. 122.

From
C. G. DOUGLAS, Esq.,
Deputy-Conservator of Forests, Anamallay, etc., Ranges,

To
A. WEDDERBURN, Esq.,
Collector and Conservator of Coimbatore.

Sir,—I have the honour to submit the Annual Report for Bolumputty Range.

SECTION I.

Inspection Tour of the Officer in Charge.—I made an inspection in February, and submitted detailed reports on several subjects for your information and disposal.

There is nothing to report under Section II., there having been no forest operations, nor under sub-headings B, Fuel Reserves nor C, Plantations.

Contemplated Operations.—I am not aware that any definite conclusion has been arrived at as to the future working of these forests. I presume a good deal of time will be occupied in exploring at first.

The Rosewood cut by Lieutenant Foord in 1865 or 1866 might, I think, be brought out of the forest this season, as the timber has been decided to be Government property. Some of it is of the length and girth required by the Gun Carriage Manufactory.

Vide G. O., No. 241, dated 4th February 1871.

SECTION III.

License and Voucher Forests.—The Bolumputty forests are worked entirely on this system, but, considering their importance to the district as regards both fuel and water supply, the substitution of a better conservancy is very desirable. They are shortly to be placed under a separate officer, and the introduction of reform will rest with him.

SECTION IV.

Yield of Forests, etc.—Statement E sufficiently indicates the quantity and description of yield for the year. The revenues have increased by Rs. 176-8-6, the expenditure by Rs. 211.

SECTION V.

Financial Results.—These are fairly satisfactory, resulting, as per annexed Statement, in a net profit of Rs. 2,428 after paying all charges.

Gross Expenditure.	Receipts.	Difference between the 1st and 2nd Columns.	Value of Stock at the close of the year.	Increase or decrease of Stock during the year.	Net Results.
RS.	RS.	RS.	RS.	RS.	RS.
1,417	3,559	+ 2,142	93 379	+ 286	+ 2,428

The value of stock has increased by Rs. 286 in consequence of the Rosewood logs, formerly cut by this department on land to which a claim was raised (in 1865 or 1866) by one Andu Sait of Coimbatore, having been appropriated once more. A survey having been completed and limits defined, the timber was found to lie in Government forest, and I have, therefore, brought it to account this year.

SECTION VI.

General Remarks, Conduct of Establishment, etc.—The Overseer in charge has given satisfaction; he apparently endeavours to do his best.

I have the honour to be,
Sir,
Your most obedient servant,
(Signed) C. G. DOUGLAS,
Deputy-Conservator of Forests,
Anamalay, etc., Ranges.

[ENCLOSURE 2.]

OFFICE OF DEPUTY-CONSERVATOR OF FORESTS,
COIMBATORE, 16*th June* 1873.

No. 123.

From
C. G. DOUGLAS, ESQ.,
Deputy-Conservator of Forests, Anamalay, etc., Ranges,

To
A. WEDDERBURN, ESQ.,
Collector and Conservator of Coimbatore.

SIR,—I have the honour to submit my report on the administration of the Anamalay Range for the year 1872-73 in the form and accompanied by the returns prescribed by the Board in Proceedings, No. 746, dated 8th May 1873.

SECTION I.

Inspection Tour of the Officer in Charge.—The month of April was devoted to office-work at Coimbatore.

2. On the 20th May I proceeded to Beypore and Calicut. At the former place inspected depôts, and at the latter consulted the Government Vakil as to the defence of a suit already reported to Government.

3. On the 5th June left Coimbatore for Anamalay where I remained till the 13th and started again for Calicut. On the successful termination of the suit above alluded to, I accompanied the Collector of Malabar and the Officiating Conservator of Forests to Nellamboor, returning to Beypore by the 30th.

4. On the 1st July reached Palghaut and remained there till the 8th, inspecting work, examining accounts, etc. The rest of the month was occupied in attending to Anamalay operations.

5. On 1st August proceeded to Coimbatore, returning to Tunicadavoo by the 5th or 6th, after placing Mr. Lloyd's substitute in charge of the Palghaut and Sholakeray forests. Engaged for the rest of the month on forest work.

6. In September paid a short visit to Palghaut, but spent most of it at Tunicadavoo. I was, however, present at the investigation of the boundary question between Coimbatore and Malabar, conducted by the Collectors of the districts concerned.

7. In October I again visited Palghaut.

8. The whole of November was spent at Tunicadavoo. Most of my establishment being on the sick list, the work devolved on me. On the 20th, the limit fixed for residence above ghaut, I sent down such of the subordinates as had not already left.

9. On the 5th December my servants falling ill I was obliged to quit the camp, and until the 12th, when I proceeded to Coimbatore, I worked the forest from Settupolliem, a few miles from Adivarum.

10. From the 20th of January to the 1st of February I was engaged in showing Mr. Hadfield, Assistant Conservator, round the forest, and giving him what information I could as to the work in hand. At this time there was only one Overseer available for duty.

11. The greater part of February was spent on an inspection tour of the Mettupolliem, Gopanairi, and Bolumputty forests.

12. In March I visited Walliar and neighbourhood on several occasions, employing the intervals on office-duty at Coimbatore.

SECTION II.

A—Reserved Forests. *Felling.*—Fifty-three Rosewood, 31 Teak, 10 Vengay, and 10 Carumurdoo trees, were cut in the leased forest.

2. The sum of Rs. 574* has, therefore, to be adjusted against the advance of Rs. 30,000 made to the Nambudi in 1867, which added to the stump fee of previous years, viz., Rs. 2,670, leaves an outstanding of Rs. 26,756 to be recovered by Government.

	Rs.
* 53 Rosewood trees, at 6 Rs.	318
31 Teak, at 6 Rs.	186
10 Vengay, at 3½ Rs.	35
10 Carumurdoo, at 3½ Rs.	35
Total...	574

3. The Rosewood yielded 264 logs, etc., containing 6,461-2-10 cubic feet as per margin, and cost Rs. 642-2-0, or 0-1-7 per cubic foot.

Rosewood.

	C. FT.	C. I.	C. P.
41 1st-class logs	1,531	9	6
34 2nd ,, ,, ...	957	6	6
8 3rd ,, ,, ...	208	10	10
181 Rejected	3,763	0	0
Total...	6,461	2	10

4. The Teak yielded 155 logs and planks, etc., containing 3,334-4-6 cubic feet, also particularised in the margin, and cost 488, or 0-2-4 per cubic foot.

Teak.

	C. FT.	C. I.	C. P.
9 1st-class planks	233	9	3
27 2nd ,, ,, ...	587	7	1
29 3rd ,, ,, ...	670	6	8
72 Rejected	1,392	5	6
18 Logs (Bridge-piles)	450	0	0
Total...	3,334	4	6

5. The Vengay and Carumurdoo gave 686-0-6 cubic feet, and cost Rs. 53-8-0 ; the Vengay at 0-1-7 per cubic foot and the Carumurdoo at 0-1-6.

6. The cost of felling thus amounts to Rs. 1,183-10-0, but this includes a sum of Rs. 110-8-0 due to one of the axemen at the close of the year, and which, not having been paid,

is not exhibited in Statement A, though taken into account when imposing the valuation rates in Statement B.

7. The fact of more than 50 per cent. of the quantity of timber felled last season having been "rejected" seems to call for an explanation.

8. The term "rejected" has this year applied to all timber falling short of the specifications of the special indent on which it may have been cut. In this case it was cut for the Gun Carriage Department of Madras, and the Superintendent of the Manufactory is obliged to insist on receiving none but timber of the best quality and of particular measurement; it by no means follows, therefore, that logs which may prove unsuited to his requirements will be found unserviceable for ordinary purposes.

9. Three Rupees a foot is the rate paid for timber selected by the Agent of the Gun Carriage Manufactory; this is a higher rate than could be obtained for ordinary timber in the market, but rates far lower will prove remunerative, and I have not the least hesitation in stating that those logs which are rejected as unfit for Gun Carriage work will still command a fair market on profitable terms.

10. A comparison of the outturn with the number of trees felled will show, to a certain extent, the wastage in cutting and preparing timber. It has been shown that fifty-three trees of Rosewood have yielded 6,461 cubic feet of wrought timber, that is, 120 cubic feet per tree. The measurement of Rosewood trees will, I think, average about 150 cubic feet, irrespective of branches, so that there is a wastage of 30 cubic feet per tree; an additional allowance must, however, be made for bark, sapwood, flaws (sometimes very large), and irregularities of growth.

11. The Rosewood logs of the 1st class average this season 37 cubic feet, those of the 2nd, 28 cubic feet, of the 3rd, 26 cubic feet, and rejected 21 cubic feet.

12. The average of the Teak is 25 cubic feet for planks of the 1st, 21 cubic feet for the 2nd, and 23 cubic feet for planks of the 3rd class, rejected pieces average 19½ cubic feet. When reference to the superiority in measurement of the 3rd class over the 2nd, it is necessary to explain that the classification of planks depends less on size than quality, so that these planks now entered as 3rd class, though of dimensions by outside measurement equal or superior to the qualifying measurement of the 2nd class, are not of sufficient contents in respect of perfectly sound wood. Taking two planks of exactly equal size, one often proves a 1st class, and the other a 3rd class, or even a rejected one, after deducting for flaws, cracks, etc.

13. The wastage in preparing Teak is greater than in Rosewood, owing to the process of splitting trees to eradicate heartshakes, etc., not observed this year, in the case of the latter. It is said that this method produces planks superior in quality to those obtained by the saw, but it is unquestionably more expensive as regards material. I am not prepared to recommend the introduction of saw machinery on the Anamalays; I fear it would not answer, but the cheaper system of converting timber into log, as has this season been done with the Rosewood, should now, I think, be more employed than hitherto. For certain purposes, however, split planking commands the highest price.

14. A sum of Rs. 1,247-5-0 has been expended on trimming up old logs.

15. At the close of 1871-72 much of the timber in road-side depôts, throughout the forests, consisted of large unwieldy logs, immense heads and butt, and, in some cases, whole trees, and the greater part was in such a state as to render it very difficult to arrive at a correct estimate of its quantity. Even had it been possible to transport the whole to a market, the irregularity in size and shape would have tended to depreciate its value, for buyers would naturally make large allowances for themselves. I resolved, therefore, to engage two or three gangs for this work, and the result has proved eminently satisfactory. The timber has now been made presentable, and has turned out excellently. Before handing it over to be trimmed, each log was examined, and the precaution taken of marking, in paint, the shape to which it might be cut to most advantage. When the trimming was finished a re-measurement, numbering, and stamping of all timber in the forest, not cut in 1872-73, became necessary; this has been completed, and it is found that of Teak there is 9,587-9-11 cubic feet more than had previously been taken into

accounts, and in Rosewood 28 cubic feet less. 1,243 logs were trimmed, of which 1,120 are Teak and 123 Rosewood.

16. *Dragging.*—1,178 logs and planks, etc., have been brought to depôt by Government elephants; this number includes the timber newly cut viz.,-439 logs, the balance of 739 represents those logs shifted from one depôt to another. One elephant was hired at a cost of Rs. 312, which dragged 173 logs; this gives an average of Rs. 1-12-10 per log.

17. *Carting above Ghaut.*—2,514 logs, etc., of Teak, Rose, and Junglewoods have been carried to head of the slip (top of ghaut) from forest depôts. Of this number 1,787 were removed by contract, and 727 by the Government cart establishment.

18. *Slipping.*—The Government elephants have slipped 855 logs Teak and Rosewood to foot of ghaut.

19. *Carting below Ghaut.*—1,041 logs have been carted from Adivarum to various localities, 279 were carted to Anamalay, the rest to Palghaut, Mungarah, and Coimbatore. 497 loads only were removed by contract to Mungarah; there would have been no difficulty in obtaining carriage for more, but it was deemed expedient, in the absence of special demands from the coast, to concentrate efforts and utilize funds on emptying forest depôts.

20. Attention has been paid to the repair of roads during the year; the traffic was confined to one line, extending about seven miles from top of ghaut. Our roads are nothing but fair weather ones; indeed, during the bursts of the south-west monsoon, they are simply impassable for laden carts. This is not to be wondered at, considering the hilly and difficult nature of the country, the soil through which they run, the bogs and water-courses they have to cross, and the severe weather and heavy traffic to which they are subjected. They have certainly been put in better order, however, and the facility with which a largely increased traffic has been conducted is owing in no small degree to improved communications, rough as they may still be; and it speaks well for them that logs of from 30 to 50 cubic feet could be transported over them with safety in ordinary carts. I do not refer to a few isolated cases; there were many logs of more than 48 cubic feet carted this season.

21. The rest of the year's work, such as hutting, clearing brushwood, formation of fire-paths, etc., does not call for special remark. The expenditure on hutting was increased by a considerable sum spent in improving the site of the forest camp at Tunicadavoo. A large clearing has now been made, and it is intended to plant it with Teak, having due regard, of course, to the maintenance of a sufficient open space. A portion of the actual cost of felling, etc., was, therefore, debited to the heading of Plantations. It is hoped that these measures may improve the condition of the camp as a place of residence.

22. *Contemplated Operations.*—As we have timber stored at Ponani and Beypore and some at Mungarah, it has been decided to keep the rest of our stock at foot of ghaut or Anamalay until a demand from the coast or elsewhere arises.

23. It is, therefore, proposed to employ the Government carts in conveying timber to Anamalay from foot of ghaut after they have removed the small quantity in forest depôts.

24. The Government elephants will slip the timber now at top of ghaut to Adivarum.

25. 8,000 cubic feet of Rosewood and 5,000 cubic feet of Teak are required by the Madras Gun Carriage Manufactory; 6,000 cubic feet have still to be cut. The quantity selected by the Gun Carriage Manufactory Agent will be delivered at Pothanore before close of 1873-74.

26. There still remains a number of *girdled* Teak; these ought to be cut, and every effort will be made to do so in 1873-74. Girdling was abandoned in the forest years ago, but one is constantly coming across the signs of its former existence. It will also be profitable to trim and bring into depôt all wind-blown trees of every useful sort to be found; special measures also will be taken to store all refuse timber down to the smallest branches. For these latter there is a demand, and it is well worth while to test the market.

27. The erection of suitable quarters for a Head Overseer with stores is contemplated at Anamalay.

28. If funds permit, the road between Anamalay and Adivarum, 8 miles, might be improved. A grant-in-aid from Local Funds might perhaps be obtained for a part of the distance.

29. It is, I think, much to be regretted that while year after year passes and tons on tons of valuable timber are drawn from this forest, no special conservancy fund is provided. It may be doubted if planting, such as is carried on at Nellambore, would be successful, if practicable, here; but it is obvious that, if it is not intended to work out and then abandon the forest, something should be done to secure a future crop of timber.

30. I am not able to say what the forest has cost, or what it has yielded from the commencement, but from 1859 to 1873 it has cost Rs. 4,76,228, out of which something less than Rs. 7,000 have been spent on conservancy proper, and even out of this it is impossible to say how much, under heading VII, has gone in works pertaining to timber actually in store. One of the most important things to be done, I think, is to ascertain the resources we have to depend on, by forming some estimate of the crop of ripe timber and the condition of that which is to succeed it.

31. The survey and demarcation of the reserved forests having from various causes been unavoidably postponed, will, it is hoped, make considerable progress in 1873-74.

32. The boundary question between Government and the Nambudi of Colengode is so far settled that the former have decided to utilize the disputed tract as a fuel reserve; this, therefore, will provide part of the coming year's work, in addition to the usual routine which need not be detailed.

33. *B. Fuel Reserves.*—There are as yet no fuel reserves in the range, but the proposal to form the one referred to above has been approved, and is shortly to be carried into effect. The land has been inspected, and a report thereon submitted in accordance with Board's orders. The reservation of this tract is likely to prove of great benefit to the neighbourhood, and similar blocks should be marked out for the like purpose in other parts of the range from the remnant of jungle still in our possession along the base of the hills.

34. *C. Plantation.*—Between 8 and 9 acres are now planted with Teak; about 20 per cent. of the plants have failed, but those which have established themselves are thriving. It is intended to plant a part of the ground which has been cleared round Tunicadavoo, amounting probably to 8 or 10 acres. Felling more jungle in order to plant is not contemplated for the present.

35. A good Teak nursery has been made this year of fifty-seven beds, twenty-five to thirty feet in length by three and-a-half feet in breadth. The seed was sown about the 15th of March, and germinated on the 8th April, each of the previous years' plantings has undoubtedly suffered from a want of vigour in the seedlings when first put out. I imagine that at no stage will Teak display here the rapidity of growth characteristic of Nellambore; seedlings certainly do not; and it was, therefore, resolved to sow early in order that when the season came round the plants might be more advanced and less liable to suffer from removal.

36. The nursery is far in excess of actual requirements, even allowing for a heavy percentage of casualties; something may, therefore, be done in planting up gaps in the forest generally.

37. The sum of Rs. 705-0-11 has been spent on plantation work during the year as follows.

38. Nursery work Rs. 119-2-7, pitting Rs. 135-10-4, planting Rs. 105-11-0, weeding, clearing of brushwood, and formation of fire-paths, Rs. 205-5-0. There is a sum of Rs. 851-2-11 under this heading in Statement A; the difference includes a share of cost of felling round the camp site brought under "Plantations," and several sums for which bills have not been submitted up to the close of the year, but which, under new rules, are charged against the year in which they were disbursed.

39. Before passing to the next section, it is necessary to review the working of the Government elephant and cart establishments.

40. Observing the same method of valuing the work of our elephants as that adopted for two preceding years, the establishment has been worked at a considerable saving to Government, thus :

				RS.	A.	P.
Value of work performed at Rs. 7 per diem for each elephant				6,363	0	0
Deduct—			RS.	A.	P.	
First, feed and keep			1,890	9	1	
Second, Pay of Establishment			915	3	8	
Sundries...			15	4	6	
Arrears of 1871-72			656	0	5	
				3,477	1	8
			Savings...	2,885	14	4

41. 855 logs were slipped, and the expenses of the establishment during the time it was engaged on this work amounted to Rs. 653-1-3 ; so that we slipped each log for about 12 Annas and 3 Pies, whereas if we hired elephants every log would cost Rs. 2-6-11.

42. 1,178 planks were dragged by elephants, and their cost, while engaged thus, as well as their expenses during their two months' rest, amounts to Rs. 2,168, so that each log cost about Rs. 1-13-5.

43. The estimate of the work includes valuation of forty-seven days' labour on sundry works.

44. The elephant engaged for forty-eight days, costing Rs. 312, dragged 173 planks ; this gives a rate of Rs. 1-12-10 per plank, a saving of 7 Pies over Government elephants, but the hire of this animal was only Rs. 6½ per diem, and its work less heavy than that given to our own.

45. The cart establishment, though apparently not so profitable a concern as the other, shows an improvement on last year's results.

46. The value of work performed as noted below is Rs. 3,610-12-0, while the cost of maintenance amounts to Rs. 4,191-1-3 (of which, however, Rs. 1,044-2-10 are arrears paid for last year) ; there is thus a balance of Rs. 580-5-3 against the establishment, which sum added to the deficit of 1871-72 makes a total of Rs. 1,719-14-7. The actual results of the year are nevertheless favourable, for deducting the arrears of the previous year, Rs. 1,044-2-10, the cost amounts to Rs. 3,146-14-5, so that the value of work performed really exceeds the outlay by Rs. 463-13-7. Four bullocks have died during the year.

	RS.	A.	P.
For carting 120 ordinary planks to Mungarah, Palghaut, and Coimbatore, from foot of ghaut, at 5¼ Rs. per plank ...	630	0	0
For carting twenty superior planks from Anamalay to Coimbatore, at 6 Rs. per plank	120	0	0
For carting sixteen superior Teak piles from foot of ghaut to Pothanore, at Rs. 7-14-0 per pile	126	0	0
For carting twenty superior junglewood log from foot of ghaut to Coimbatore, at Rs. 7-14-0 per log	157	8	0
For carting 297 ordinary Teak planks from foot of ghaut to Anamalay, at Rs. 1-4-0 per plank	371	4	0
For carting forty-seven superior Teak planks from Karian Sholah to Moodie, at Rs. 3 per plank	141	0	0
For carting 534 ordinary Teak planks from Pooliady to Moodie, at Rs. 2-8-0 per plank...	1,335	0	0
For carting 146 superior Teak planks from Pooliady to Moodie, at Rs. 5 per plank	730	0	0
Total ...	3,610	12	0

47. The cart establishment was first sanctioned in December 1866, so that it has now had a trial of six years and-a-quarter, and it may be useful to investigate the results of its working during that period.

48. In 1866 seventy-three bullocks and forty carts were purchased for Rs. 4,012. In 1869, thirty-six were bought for Rs. 2,385, and a further sum of Rs. 1,738 was paid for twenty-six in 1870; total outlay Rs. 8,135.

49. The maintenance of the establishment during the 6¼ years it has been in existence has cost Rs. 30,334-7-2, viz., 1st, feed and keep of cattle Rs. 12,516-7-5; 2nd, pay of drivers, etc., Rs. 14,948-8-8; 3rd, repair of carts Rs. 2,869-7-1.

50. Between the 31st December 1866 and 31st March 1873 forty-eight head of cattle have died (of which nine died in 1868 and twenty-two in 1869), twelve have been cast and sold for a mere song, and six have been killed by tigers. Probably more were killed by tigers, but no special record seems to have been kept, the casualties being simply put down as "deaths" till June 1870. The establishment has thus lost sixty-six head out of 134, or very nearly half.

51. The value of the remaining sixty-eight cattle cannot be estimated at more than Rs. 3,590,—an estimate from which is omitted any allowance for depreciation from age or other causes; therefore, putting the carts at their original cost of Rs. 1,079, the sum of Rs. 3,466 represents the value of the loss sustained by casualties.

52. Now presuming the establishment to have been managed, on the whole, to the best advantage, the question seems to be what value shall be placed on the conveniences, undoubtedly great, afforded by the means of transporting timber when and where it is desired. In other words, supposing it is not possible to make the thing actually a paying concern, it is necessary to reflect how far the advantages compensate for the loss.

53. No regular roster of work performed appears to have been kept prior to the one opened in June 1870. The notices in various reports, however, show that to the end of 1870 the establishment had more than paid expenses. No work is recorded for 1866-67, and the result of work performed in 1867-68 is not given. In 1868-69, however, the establishment did work to the value of Rs. 6,909-6-0, having cost only Rs. 3,324-3-6, so that a saving of Rs. 3,585-2-6 was effected. In 1869-70 a deficit of Rs. 213 occurs, which reduces the profits to Rs. 3,372-2-6 for the three years. Since June 1870 two out of three seasons work have failed to show any saving over contractors' rates, and the total deficit on 31st March 1873 is Rs. 1,719-14-7 due credit having been taken for the saving of 1870-71.

54. The deficit of the last three years, therefore, reduces the profits of the preceding like term to Rs. 1,652-3-11, but taking into account the loss in stock, amounting to Rs. 3,466, there is a final balance against the establishment of Rs. 1,813-12-1 for the period of six years, or an average of about Rs. 302-4-8 per annum.

55. Assuming the correctness of the figures on which the foregoing calculations are based, I do not consider the average loss incurred sufficient to counterbalance the benefits arising from the establishment.

56. It is probable that during the next six years the death rate among the cattle will be higher, while less work will be obtainable as the animals become enfeebled by age.

57. If, as is stated in paragraph 12 of the report on this range for 1868-69, the value of the work performed by Government carts, calculated at contractors' rates, amounts to Rs. 6,909, it is not clear why so small a sum as Rs. 3,284-8-9 is imposed on the work of 1869-70 (*vide* paragraph 3 of the Report for that year).

58. In 1868-69, 585 logs were carted from the forest depôts to top of ghaut. 855 from foot of ghaut to Anamalay, a distance of 8 miles, and 82 to Mungarah, the floating station, a distance of, say, 30 miles.

59. In 1869-70, 662 logs were conveyed from forest depôts down the new ghaut and on to Coimbatore and Palghaut, both of which stations are nearly 40 miles from foot of ghaut.

60. Much, of course, depends on the distance the timber was carried from the interior of the forests, but still I cannot reconcile the two results, for I should have expected the latter year's work to have been the most expensive of the two, had it been done by contract.

SECTION III.

License and Voucher Forests.—There is little to report anent this portion of the range. The seigniorage collected this year amounts to Rs. 3,307-11-3, which is an increase of Rs. 860-4-10 on the receipts of 1871-72, and of Rs. 1,825-1-3 on these of 1870-71.

2. Statement E shows the quantity of timber, bamboos, firewood, and charcoal removed on licenses, the tax imposed, and the total receipts under each heading.

3. Free passes have been granted for 4,368 cubic feet of timber during the year,—a decrease of 2,665 cubic feet on the quantity for which passes were granted in the year preceding, and 2,528 cubic feet more than in 1870-71.

4. Free passes have also been issued for 148 tons of firewood, which is less by nearly 50 tons than was granted the year before, and 147 tons less than in 1870-71.

5. 347 bandy-loads of bamboos have been taken out of the forest free of tax this year, which is less by 777 loads than were removed in 1871-72 ; in 1870-71, 638 loads were granted on free passes.

6. A comparison of these figures with those of Statement E shows that the quantity of timber granted free is more than that on which tax was levied by 4,046 cubic feet ; also that the quantity of firewood which did not pay tax is equal to more than three-sevenths of that which did, and that in bamboos the number of loads which paid was greater by 2,640 than that which did not.

7. I think it very desirable that, as the license and voucher forests form a separate branch of the Range work, and are completely distinct from the "*Reserved Forests,*" the cost of the establishment for their protection, as well as the revenues derived from them, should also be a separate debtor and creditor account.

8. Hitherto the seigniorage collections have been shown amongst the Anamalay receipts and in return Overseers and Peons have been supplied.

9. The receipts of the license forests this year average more than Rs. 250 per mensem, and for a little more than half this amount a more suitable establishment could be provided.

10. The sanctioned number of peons is not at present sufficient for both reserved and open forests.

SECTION IV.

Yield of Forests, Expenditure, etc.—Statement A, B, C, and D show, respectively, the expenditure, value fixed on new stock, sales, and particulars of stock on hand on 31st March.

2. I am not aware of anything calling for special remark in Statement A.

3. In Statement B, the value imposed is regulated by actual cost of the timber agreeably to G. O., No. 962, dated 22nd June 1872 ; it will be seen that the timber has been economically cut and stored, and that it can eventually be brought to market at an outlay admitting of a profit on even the lowest rates of sales obtainable.

4. The difference in the value of the first two items (Rosewood) is owing to one batch of timber having been brought to top of ghaut, while the other has merely been delivered at road-side depôts.

5. The former consists of 183 logs, containing 4,020 cubic feet ; the latter eighty-one logs, containing 2,441-2-10. The difference in value represents the cost of transport between forest depôts and top of ghaut, viz., 1½ Annas per foot.

6. In estimating value I have allowed a charge of 4 Annas 11 Pies as cost of supervision and sundry expenses ; the rest includes all charges, share per cubic foot of stump fee, felling, dragging, etc.

7. The Teak is more expensive than the Rosewood ; the whole has been brought to top of ghaut for less than 12 Annas per cubic foot, including all charges, and some to Pothanore for Rs. 1-1-7 per cubic foot.

8. The Vengai and Carumurdoo have been delivered at Coimbatore at a very moderate cost, and the sale result Statement C encourages the hope that a larger trade in these useful timbers would be profitable.

9. Statement C shows the profit on the year's sale of nearly 18 per cent.

SECTION V.

Financial Results.—The annexed table exhibits the net result of the year's transactions, viz., a deficit of Rs. 6,280 :—

Gross Expenditure.	Receipts.	Difference.	Value of Stock at the close of the year.	Increase or Decrease of Stock.	Net Results.
Rs. 42,619	Rs. 11,649	Rs. —30,970	Rs. 1,37,571 / 1,62,261	Rs. +24,690	Rs. —6,280

2. This is not to be ascribed to extravagance in working, nor, as has just been shown, to the failure of such sales as took place. It is partly attributable to the large outlay consequent on the transport of old stock, the value of which was taken credit for some years ago when rates were higher. When the whole of the present stock has been stored in localities whence it can be sold direct without further expenditure, it may be hoped that the deficiency will be more than covered by proceeds.

3. It is perfectly clear from Statement C that the department can work at a considerable profit, but the accumulation of a stock largely in excess of the demand or of the means required for transport, defers realization for an indefinite period, during which a certain outlay and proportionate diminution of said profits are unavoidable.

4. During the last ten or twelve years the demand for Anamalay timber has been exceedingly fluctuating ; at one time ceasing entirely, and at another proving larger than we were in a position to meet. For greater portion of that time the principal efforts of several successive officers have been directed to the transport of old stock.

5. It is not satisfactory to have to record a deficit of over 6,200 Rs., but it is something to have accomplished the almost total clearance of forest depôts, and to be able to state that only 397 loads of old and 81 of new timber remain.

6. Under the new system of accounts, the sum of Rs. 2,005-9-11, representing unadjusted items, has been debited to the year's expenditure and stands as a portion of the Rs. 6,280.

7. Again, under circumstances reported to Government (*vide* Proceedings, No. 408, dated 16th April 1873) one of the items in last year's stock account has been reduced by Rs. 9,043-11-5; but for those two alterations a small balance of more than 4,700 Rs. in favour of the range could have been shown.

8. The accounts for the last fourteen years, viz., from the beginning of 1859-60 to the 31st March 1873, have been examined. The expenditure during that time, including, of course, establishments, amounts to Rs. 4,76,228, and the receipts by sale of timber amount to Rs. 6,69,518 giving a balance in favour of the forest of Rs. 1,93,290, or a yearly average of Rs. 13,807. In calculating net results by the same method of bringing into account the annual increase or decrease of stock as is employed in the table annexed to paragraph 1, Section V. of this report, the profits of the forest average Rs. 22,500 per annum. I think this forest could be rendered as valuable as ever without resorting to plantations by a judicious outlay on the conservancy of

indigenous trees. A year or two devoted to complete rest and strict conservancy would do wonders, and enable us to start on a new footing, while the light of former experiences should benefit the future working.

9. To show how the trade of this range fluctuates, I may observe that in these fourteen years the cash receipts on one occasion amounted to as much as Rs. 2,65,953, or Rs. 2,43,468, more than the year's expenditure. On another, Rs. 75 only were realized or Rs. 33,764 less than the cost of the year. Again, from 1865-66 to 1870-71, both inclusive, the net result of each year was unfavourable, varying from a deficit of 49,124 Rs. occurring in 1865-66, to Rs. 9,390 in 1870-71.

10. Tested by this system it is found that the net results of the past few years, from 1865 to 1870, do not correspond with the actual money transactions; that on those occasions when the largest sales were effected the decrease in value of stock more than counterbalances the actual money profits. This is doubtless, in some degree, attributable to over-estimating the value of timber in the forest, allowing an insufficient margin for the cost of transport, etc., to a market. The present mode of valuation, however, renders such an error impossible.

SECTION VI.

General Remarks.—The question of transport, more especially above ghaut, has always been a difficult one in this range. It is, therefore, gratifying to be able to show a decided improvement in this important branch of work. For the last three years there has been a steady increase.

2. In no season since 1861-62 has so much timber been removed from the forest as in the one now under report. Taking the quantity removed *above and below ghaut*, it will be found less than the performances of last year, but the reason of this is explained in paragraph 19, Section II. The small balance still in the forest could have been carted out had it not been for the unusual and prolonged severity of the rains of the north-east monsoon. This, it will be remembered, was experienced in a greater or less degree throughout the Presidency.

3. In view of the large stock on hand, and in the presence of means adequate to its removal, it would be well to decide, as quickly as possible, in what direction a market is to be sought, for if not utilized the labour will, of course, seek employment elsewhere, and may prove very difficult of recovery.

4. The conduct of the establishment has, on the whole, been satisfactory.

5. The health of subordinates has been very indifferent. Mr. Taylor, the Head Overseer, has suffered much from fever, and, after obtaining one month's privilege and two months' sick leave to the Hills, has been compelled to apply for a transfer. Assistant Overseer Mootoosawmy Pillay was also on sick leave for three months, and, being no longer equal to the work of this range, has also applied for a change. He has been more than twenty years, however, on the Anamalays. My Second Assistant Overseer Syed Ghoolam Sheffe has resigned. The prevalence of fever was a source of great inconvenience. I was left at times without a soul to assist me.

6. Five deaths from fever occurred during the year, viz., the Fouzdar, one Peon, one Mahout, and two drivers; a driver also died from snake-bite, likewise a horse-keeper of Mr. Taylor's. In both instances death ensued within twenty-four hours, and in neither could the class to which the snakes belonged be determined, they having, as usual, been battered out of recognition.

7. Before closing the report, it is necessary to chronicle one of the most important results of the past or of any previous year. The Teak forest has been declared a strict reserve, the Conservator (Collector) having notified the same in the gazette. Nobody* who is not in the service of the department is now allowed entry, unless he can produce a pass from the Deputy-Conservator; this is in strict conformity with the concluding words of paragraph 11, G. O., No. 240, dated 1st March 1873, and is a great step gained.

Jungle tribes are, of course, excepted.

8. The withdrawal of the Palghaut, Sholakeray, and Bolumputty forests from the charge of the Anamalay officer is another measure calculated to operate beneficially on this range.

9. A variety of seeds has been collected during the year for the Mauritius and other places.

10. It is to be regretted that no specimens of timber were sent to the Vienna Exhibition, but so short a notice was given that it was quite impossible to make a collection worthy of the Anamalays, and therefore the attempt was abandoned.

I have the honour to be,
Sir,
Your most obedient servant,

(Signed) C. G. DOUGLAS,
Deputy-Conservator of Forests,
Anamallay, etc., Ranges.

COLLECTOR'S OFFICE, COIMBATORE,
31*st July* 1873.

No. 157.

From

A. WEDDERBURN, ESQ.,
Collector of Coimbatore,

To

J. GROSE, ESQ.,
Secretary to the Board of Revenue, Madras.

SIR,—I have the honour to forward, without remark, Colonel Morgan's Administration Report as regards Mudumallay forests which are in Malabar and not Coimbatore. I took the opportunity of joining Colonel Morgan in the inspection of the Sattimungalum, via Hassanoor, and Collegal Sandalwood plantations and depôts, and of making some inquiry regarding a long standing Mysore forest claim. The Sandal plantations appeared to be thriving, and as the wood is so valuable a plantation may recoup its cost.

1 Report of Colonel Morgan, No. 131-297, of 10th July 1873, with
8 Statements for Bhowany forest.
8 ,, for Seegur and Sattimungalum forest.
8 ,, for Collegal forest.
8 ,, for Mudumallay forest.

2. Having seen Colonel Morgan's operations, I then made a tour by myself in a different direction up the Bhurghur ghaut, north as far as the river, which joins the Cauvery at Cauveripuram.

3. I have related to the Board of Revenue in Proceedings, dated 29th May 1873, No. 27-897, the state I found collections in where remote jungles had been let and sub-let with the view of obtaining a small seigniorage.

4. So completely converse to all idea of communal rights was that system, as I found in the north Bhowany Taluq jungles, that I proposed a plan which will make its repetition impossible, and which is now under the consideration of Government.

G. O., No. 622, of 18th June 1873.

5. I regret that I am not in a position to offer an opinion as to the real amount of railway fuel that is procurable in the Bhowany Taluq at Nerinjeepet. I did not visit, but judging from the country, through which the Bhurghur stream runs, and which I explored in all directions, I do not think that the sparse hill forests in the north-east of this district afford a permanent fund for the railway to draw on, and that advantage must be taken to stock all the Cauvery padugays or reedy margins with the Babul tree which stands submersion.

6. I also visited the fuel reserve at Mettoopolliem ; it is on the plain below the Kotagherry ghaut, and has been rather contemptuously alluded to by the Nilgiri plateau officer. It is wonderful how even a dry, thorny jungle recovers by the exclusion of cattle. I expect that the

grass cut thereon will be eagerly sought for in the dry weather, when the flocks have eaten every green thing, which devastation results from unlimited access to jungles, and no restriction of stock grazed.

7. Mr. Ross has solely been appointed to the Mettoopolliem and Upper Bhowany Range, and I expect some good practical results from his scientific education.

I have the honour to be,
Sir,
Your most obedient servant,

(Signed) B. HORSBRUGH,
Acting Sub-Collector in charge.

N.B.—This report was drafted by Mr. Wedderburn, but he left on leave before he could sign the fair copy.

(Signed) B. H.

DEPUTY-CONSERVATOR'S OFFICE,
OOTACAMUND, 10*th July* 1873.

No. $\frac{131}{297}$.

From

COLONEL H. R. MORGAN,
Deputy-Conservator of Forests, Ootacamund,

To

A. WEDDERBURN, ESQ.,
Collector and Conservator, Coimbatore.

SIR,—I have the honour to forward the Annual Report of the forests under my charge for the year 1872-73.

SECTION I.

INSPECTION TOURS.

In April 1872.—Collegal was visited ; also the Mysore timber yard.

In May.—The Mudumallay planting and carting operations were inspected ; also the work in Seegur forest and Sandalwood plantation.

In June.—I visited the Sandalwood plantations at Tullamallay and inspected the jungles at Vylore in Collegal ; also the Sandalwood plantation there.

In the latter part of the month I visited the Nellumbore Teak plantations in company with the Collector of Malabar.

In July.—The floating and other operations at Bhowany and Nerinjeepet were inspected, also the Mettoopolliem jungles ; in the latter part of the month Mudumallay plantations and work were inspected.

In August.—I inspected the new land at Nellumbore about to be purchased for Teak planting ; also some land near Walliar about to be purchased for a railway fuel plantation.

In September.—I again inspected the planting and other operations at Mudumallay.

In October.—I visited Mettoopolliem and the new land purchased in the Nellumbore jungles ; in the latter part of the month the work in Collegal, Vylore Sandalwood plantation, and Tullamallay plantations in Sattimungalum.

In November.—The Sandalwood plantations in the Seegur forests, the operations at Mudumallay, and saw-mill at Seegur.

In December.—Mudumallay and Seegur forests.

In January 1873.—I visited the saw-mill in Seegur, the plantations of Tullamallay with the Collector of Coimbatore, Vylore plantations, and the Ballyrungam Hills to inspect the boundary between Coimbatore and Mysore.

In February.—I visited the Mudumallay and Seegur forests, the saw-mill works at Seegur; in the latter part of the month, the floating operations at Erode, Bhowany, and Nerinjeepet, and the Mettoopolliem fuel reserves.

In March.—Mudumallay and Seegur, the saw-mill work, the Sandalwood plantations at Tullamallay, and the operations in Collegal were inspected.

SECTION II.

A.—Reserved Forests, Operations, etc.

Mudumallay Forest dragging Timber.—5,124 cubic feet have been dragged from the forests to the depôt at a cost of Rupees 915-14-1 ; besides some 200 logs were set up for sawyers by elephants, and felling cleared of trunks of trees, etc.

Carting Timber.—In the year sixteen carts have been employed in carting timber from the forest to the Karkana depôt ; 20,459 cubic feet were carted at an expense of 4,571 Rupees, besides carting from Tippecadoo depôt to the saw-mill 20,000 cubic feet, at one Anna a cubic foot = 1,250 Rupees, which makes the cost of carting in the forest Rupee 0-2-1 per cubic foot, or 1 Pie a cubic foot in excess of contractor's rates. I may remark that a good deal of the carting in the forest was from the very farthest depôts, and contractors would probably have charged 3 Annas a cubic foot instead of 2 Annas, so that our carts have worked cheaply, though there is no apparent profit.

Roads.—The main line of road with feeders is in a good state of repair, though wild elephants are still troublesome, breaking bridges and trampling the roads into a muddy state.

Contemplated Operations.—30,000 cubic feet of Teak to be carted to Mysore and 20,000 cubic feet to Ootacamund, partly beams, partly sawn timber ; to saw up 20,000 cubic feet of cracked beams at the Seegur saw-mills.

B.—Fuel Reserves.

Bhowany.— These are not demarcated ; in the event of the railway coming to terms with us, it will be very necessary to have very large fuel reserves in the Bhurghur valley and smaller ones between Cauveripuram and Nerinjeepet.

C.—Plantations.

Mudumallay Forest. Benni Plantation.—This year 17,000 Teak plants were planted at Benni ; the failures at the end of the year amounted to about two per cent. The season was very favourable for planting ; the total number of plants is now 60,000. Twelve acres have been cleared for this year's planting, and new nurseries formed ; the cost of the plantations up to the end of the official year amounts to Rupees 3,280-2-10 ; total up to last year Rupees 12,233-14-0. Total of the whole planting up to March 31st, 1873, Rupees 15,524-0-10, or about 4 Annas a plant all round up to date.

Contemplated Operations.—To plant 12 acres with Teak and to clear 12 acres for next year's planting.

Sattimungalum Forest.

Tullamallay Sandalwood Plantation.—During the past year 14,500 Sandalwood plants were put out at Tullamallay ; the total up to last year was 40,400 plants ; up to date the total is 54,900. Ten acres have been ploughed and pitted for planting. The trees are progressing satisfactorily. The cost during the year has been Rupees 2,496-3-0, up to last year Rupees 6,667-9-10 ; the total up to the end of March 1873, Rs. 9,163-12-10.

Contemplated Operations.—To plant 10 acres and clear 10 acres for next year's planting.

Seegur New Sandalwood Plantation.—A new Sandalwood plantation in a very favourable site was opened in the Seegur forest. Nine thousand plants were put out, all doing exceedingly well, and ten acres cleared for planting this year. The cost during the year is Rupees 1,742-3-5 ; in last year Rupees 339-0-8 ; total to 31st March, Rupees 2,081-4-1.

Contemplated Operations.—To plant 10 acres and clear 10 acres for next year's planting.

Collegal. Ballyrungum Sandalwood Plantation at Vylore.—In the past year 23 acres were planted with 23,000 Sandalwood plants; this brings the total planted to 47 acres; in addition to this 30 acres have been cleared and got ready for planting. The total plants up to March are 29,200. The cost in this year is Rupees 4,466-0-7; up to last year, Rupees 3,839-1-9; total up to 31st March, Rupees 8,305-2-4; besides the above work extensive water-channels have been prepared, by which the cost of watering the plants will be much reduced.

Contemplated Operations.—To plant 50 acres and clear 50 acres if funds are available.

SECTION III.

LICENSE AND VOUCHER FORESTS, OPERATIONS, AND CONTEMPLATED OPERATIONS.

Seegur and Sattimungalum License Removals.—During the year 4,729⅝ cubic feet were removed on licenses, 700 tons of firewood, and 200 cart-loads of bamboos; amount realized Rs. 2,356-1-4, of this the firewood contract amounts to Rupees 1,323-7-4.

Departmental Working.—2,902¼ maunds of Sandalwood were felled and brought to depôt, valued at Rs. 4,917-6-0; 549½ cubic feet of Vengay, 203 cubic feet of Blackwood, 37¼ cubic feet of Teak, 48 cubic feet of Junglewood, and 160¼ cubic feet of Achawood; total value Rs. 499.

Contemplated Operations.—To fell 2,000 maunds of Sandalwood and 3,000 cubic feet of Teak and Vengay to supply the market depôt at Sattimungalum.

Bhowany License Removals—Amount to 8,964 cubic feet of timber, 450 tons of firewood, 200 cart-loads of bamboos. Amount realized Rupees 4,133-8-0, of this the firewood contract produced Rupees 892-8-0.

Departmental felling.—5,932¾ maunds of Sandalwood felled and brought to depôt, valued at Rupees 10,382-5-0, and 20 tons of firewood for railway fuel valued at 60 Rupees.

Contemplated Operations.—To fell 2,500 maunds of Sandalwood and 5,000 tons of fuel for the railway; to render dangerous places in the Cauvery passable by boats and rafts.

Collegal License Removals—Amount to 2,240 cubic feet of timber, 350 tons of firewood, 150 cart-loads of bamboos. Amount realized Rupees 1,212-2-0, of this the firewood contract produced Rupees 652-2-0.

SECTION IV.

Yield of Forest. Expenditure on carting, felling, etc.—*Vide* Table A.

SECTION V.

Financial Results.—These are more satisfactory than those of last year; the expenditure on all the forests amounts to Rupees 89,386-10-7, and the returns to Rupees 1,08,342-4-1, showing a profit of Rupees 18,955-9-6. The sales at auction in Mysore have enabled us to dispose of nearly 30,000 cubic feet of Teakwood, and this year we shall most probably sell the same amount. The prices are not high, but a rupee a cubic foot; the average rate causes no loss, though we gain but small profits; the opening of the Mysore railway would at once raise the value of our timber. If the amount, Rupees 12,078-10-10, spent (out of profits) on plantations be added to the surplus of Rupees 19,845-8-0, the whole profits of the year will amount to Rupees 31,924-2-10, —a fair result for the year's work.

Mudumallay Forest.—The expenditure amounts to Rupees 46,163-13-9, and the receipts to Rupees 46,043-8-6. Planting cost Rupees 3,280-2-10, and thus represents the real profit of the year. In addition, the whole of my pay is charged to Mudumallay forest. If 10 per cent. on the gross expenditure of the other forests was charged for supervision, this would reduce the charge of supervision for Mudumallay from Rupees 12,490 to Rupees 8,260-14-0, or the profit of Mudumallay for the year would be Rupees 7,510-2-10 instead of nothing as it appears at present.

Seegur and Sattimungalum.—The financial results are satisfactory, but the Sandalwood is being gradually worked out, and it will take twenty years before any of our planted Sandalwood is available. There is but little demand for timber in Sattimungalum from our new timber yard. The expenditure is Rupees 9,694-10-7; the receipts Rupees 17,252-10-10, surplus Rupees 7,558-0-3; in addition we have spent Rupees 4,238-6-5 in planting.

Collegal.—The results here are also satisfactory, the expenditure being Rupees 13,103-12-11, the receipts Rupees 18,360-10-0, surplus Rupees 5,256-13-1, besides Rupees 4,466-0-7 spent on plantations.

Bhowany.—The results here are satisfactory; the expenditure is Rupees 20,424-5-4, the returns Rupees 26,685-6-9, surplus Rupees 6,261-1-5. We have spent but a small sum on an experimental firewood plantation, but keeping the river clear for navigation is at present a heavy item of expense, but one that does not recur again; the benefit resulting from this expenditure can be shown only in future years when we supply the railway largely with fuel. During last year 1,100 tons of fuel were stacked at Erode and 581¼ made over to the Madras Railway; the balance was made over to the Great Southern India Railway early in the year, but the receipts for the same do not appear until this year. The requirements of the Great Southern India Railway alone are at present 2,500 tons annually, the Madras line probably as much more; the late rise in coal,—a rise that promises to continue for years,—must compel the railway to resort to wood fuel, and we must be prepared to supply it.

SECTION VI.

General Remarks.

Conduct of Overseers.—Overseer Cundasawmy Pillay of Sattimungalium has been zealous in the discharge of his duties; the Assistant Overseer has likewise done his duty. The peons in this taluq have to undergo much exposure in sickly places.

Overseer Vencatappa has satisfactorily carried on the works at Mudumallay, and the planting establishment has done well as the few failures show. Overseer Grant of Bhowany has worked zealously; the Assistant Overseer in charge of floating operations has ably seconded the Overseer in these important works; the peons have generally kept down illegal felling.

In Collegal—Overseer Appavoo Mudalliar has conducted his duties satisfactorily, but the Assistant Overseer in charge of the Vylore Sandalwood plantation is unequal to the work, and unless he improves must be removed. The peons in this taluq do not keep down illicit felling as they ought to do, but they have not hitherto been supported by the Tahsildar.

The Health of the Establishment—has been better this year than last, but a great deal of fever has prevailed; as early as November a wave of fever passed over Wynaad right down to Nellumbore; I did not escape it. Three peons and the planting duffadar at Mudumallay died.

Conservancy.—During the past year the progress of forest conservancy though slow has been sure; there have been no encroachments to complain of, and prosecutions though few have not miscarried.

During the past year we have commenced sawing up cracked logs down in the Seegur forest reverting to an arrangement made some years ago with Mr. Groves of the Northern Hay Saw-mills. The wastage (owing to the timber being the worst in the depôts) is considerable, some 40 per cent., but the sale of sound sawn-timber in Ootacamund will, I have no doubt, cover the loss of wastage. I am now making inquiries in England regarding a system of sawing by electricity: a platinum wire heated to a white heat by a galvanic battery is passed through the timber, and two men may in this manner cut up the largest logs. If the system is a success, a portable sawing machine, such as I have long desired to obtain, will be available for work in the forest, and the gain will be great. The present system of three men to a saw to cut a log in half before it can be carried by a cart is tedious and expensive. One man of the three is nearly sure to be sick, and then the two remain idle, and run into debt. It is worthy of remark that in Mudumallay the stock of timber, which at the beginning of the year stood at 1,35,000, has been reduced agreeably to the advice of the Revenue Board to 1,05,000 Rupees, and will most probably this year be reduced to 40,000 Rupees, and in another year will cease to exist, unless fresh felling is commenced. Had the railway to Mysore been made as was anticipated, the stock would have been entirely exhausted by the end of this

year. Every year we spend a large amount on plantations, and provided that the situations be well chosen and due economy exercised in the planting operations, there is no doubt but that plantations of Teak and Sandalwood must be a great success.

I have the honour to be,
Sir,
Your most obedient servant,

(Signed) H. R. MORGAN, Colonel,
Deputy-Conservator of Forests.

COIMBATORE COLLECTOR'S OFFICE,
9th September 1873.

No. 198.

From

A. WEDDERBURN, ESQ.,
Collector of Coimbatore,

To

H. E. STOKES, ESQ.,
Acting Secretary to the Board of Revenue, Madras.

SIR,—In continuation of my letter, No. 157, dated 31st July last, I have the honour to forward Colonel Morgan's Administration Report on the working and conservancy of Mettoopolliem forest during the official year 1872-73. I have no remarks to offer, except that I expect it will in time supply sufficient quantity of fuel for the use of the Nilgiri branch of Madras Railway.

1 Colonel Morgan's Report, No. 157-364, of 12th August 1873, with seven enclosures.

2. I regret to state that this report has unavoidably been delayed in consequence of the change of officers in the superintendence of this forest since the commencement of this official year.

I have the honour to be,
Sir,
Your most obedient servant,

(Signed) B. HORSBRUGH,
For *Collector.*

[ENCLOSURE 1.]

DEPUTY-CONSERVATOR'S OFFICE,
OOTACAMUND, *12th August* 1873.

No. ¼¼.

From

Colonel H. R. MORGAN,
Deputy-Conservator of Forests, Ootacamund,

To.

A. WEDDERBURN, ESQ.,
Collector of Coimbatore.

SIR,—I have the honour to forward the Annual Report of the Mettoopolliem forest for the official year 1872-73.

SECTION I.

Inspection Tours.—As per my Administration Report No. $\frac{1}{11}$ of 15th July 1873.

SECTION II.

RESERVES.

B. Fuel Reserves.—About ten thousand yards of fencing were completed at a cost of Rupees 1,487-6-0 ; though not long finished, the growth of grass and trees within the reserve is already striking.

SECTION IV.

Yield of Forests.—As per Statement A.

SECTION V.

Financial Results.—As per Statement G.

SECTION VI.

General Remarks.—There have been great complaints regarding the issue of free licenses by Monigars and others not only in this forest but in all the forests, and the suggestion of the Collector that they should be done away with is, in my opinion, most important. The abuse of free licenses is beyond our power to check without a much larger establishment than we have at present.

I have the honour to be,
Sir,
Your most obedient servant,

(Signed) H. R. MORGAN, Colonel,
Deputy-Conservator of Forests.

COMMISSIONER'S OFFICE,
OOTACAMUND, 20*th June* 1873.

No. 57.

From

J. R. COCKERELL, ESQ.,
Commissioner of the Nilgiris, Ootacamund,

To

J. GROSE, ESQ.,
Secretary to the Board of Revenue, Madras.

SIR,—With reference to Proceedings of the Board of Revenue, dated 8th May 1873, No. 746, Forest No. 21, calling upon all Collectors in charge of forests to send their reports on the administration of forests for 1872-73 as soon as possible, I have the honour to state that no report is due from me for 1872-73, as Colonel Morgan informs me that the Segur forests having been, during the past year, under the jurisdiction of the Collector of Coimbatore, the report of that portion of his charge Colonel Morgan proposes to send to that officer.

I have the honour to be,
Sir,
Your most obedient servant,

(Signed) J. R. COCKERELL,
Commissioner of the Nilgiris.

SALEM COLLECTOR'S OFFICE,
3rd September 1873.

No. 260.

From

F. PRICE, Esq.,
Acting Collector of Salem,

To

J. GROSE, Esq.,
Secretary to the Board of Revenue, Madras.

SIR,—I have the honour to enclose, with the necessary statements, the report of the Deputy-Conservator of Forests upon the administration of his charge during the year 1872-73.

2. As the forests passed under the control of the Collector in October last only, and as this is the first report which my department has been called upon to submit, I feel it rather difficult to determine upon what points I am required to touch.

3. Mr. Brougham's letter is a very full one, and treats, to a great extent, of transactions of which I have no knowledge except by hearsay. Other matters have been dealt with in letters written by me from time to time to the Board of Revenue.

4. *Inspection Tours.*—I presume that the Collector, in his capacity as Conservator, should, when his other duties will permit, make inspections of the forests in his charge. Mr. Longley, I believe, made none. As Sub-Collector, I, in October, examined the Melgherry Hills and the ranges at the back of them, with a view to the preparation of a scheme for the purpose of demarcating the forest. I also inspected the site of the proposed Sandalwood plantation at Kanavainagasundaram and the Tumbakovai and Anebiddamadagu valleys. The Melghorries and adjacent hills are pretty well worked out, and it will take years before the young forest now springing up will be fit to cut. In the Tumbakovai valley there is a dense jungle of bamboo of the finest quality, and in the Anebiddamadagu valley and on the surrounding hills there is any quantity of splendid timber. There are no roads by which to get the latter out, but as I have already stated in my enclosure to the Budget measures are being taken to remedy this defect.

Mr. Brougham has, in spite of bad health, moved about a great deal, and done much in the way of improving the working of the jungles, and what is in my eyes of more importance still has succeeded in allaying, to a very great extent, the ill-feeling which was formerly entertained by both the ryots and hillmen towards the Forest Department. I consider that he has done very good work, and that he is an able and extremely painstaking officer. As regards the remarks made in the section of the Deputy-Conservator's letter relating to inspections, I have the following observations to offer :—

(1.) Inquiries are now being made and information collected with a view to determine whether some restrictions should not be placed upon the present system of ponnakadu (hoe) cultivation on all the hills of the district.

(2.) Inquiries will be made and orders passed regarding the encroachments of the Muttadar of Neyamalai on the Peria Kulroyans.

(3.) The question of renting the Chinna Kulroyans is under consideration, and when I next visit the Ahtur Taluq I shall do my best to bring the matter to a conclusion.

(4.) Arrangements have been made for the planting and up-keep of the Kanavainagasundaram Sandalwood plantation ; and the bandy-track to which Mr. Brougham refers is being repaired and improved.

(5.) The question of utilizing the Thuringi forests along the banks of the Kaveri and Toppoor rivers for railway fuel will, I hope, be gone through and settled during the current year. My view is to work them for the greater part *viâ* Toppoor, which I consider the easier and least expensive route.

(6.) The depôt system of working bamboos is being gradually introduced. I fear, however, that the cost of cutting and storing seeding bamboos in any quantity for future use, though it would

undoubtedly prove remunerative, would be so great that the charge would not be sanctioned. The depôt system works well, but there is, as it is something new, a good deal of opposition to it. This will no doubt wear off, as it did in the case of timber, as time goes on.

(7.) The dispute regarding the Kadathur Mutta boundary is now in the hands of the Director of Revenue Settlement.

SECTION II.

5. *A, Reserved Forests.*—The two ranges of Denkanicottah and Tripatore were both worked satisfactorily by the officers in charge of them. The want of roads has impeded the transport of timber to the depôts, but there is every hope that by next year there will be a considerable improvement in this respect as well as in the collection of forest-products.

The contemplated operations for the coming year have been entered into, as far as they could be, by me in the letter on this subject, which accompanied the Budget for 1874-75.

B, Fuel Reserves.—Regarding these I have no remarks to offer. They appear to be carefully looked to. I approve entirely of Mr. Brougham's allowing grazing and the removal of dead wood in railway fuel reserves under the restrictions imposed by him.

C, Plantations.—The plantation on the Shervaroy Hills is a failure, and I do not think that it is worth the spending of any more money upon it. My observation of it about a year ago quite bears out Mr. Brougham's remarks. Goondalur (Goondur) where another plantation is proposed is about half way up the Shervaroys, sheltered, has good soil, and is well adapted for the purpose, I have no doubt that both Teak and Sandalwood would succeed there. I think that the *Cassia florida* would grow well at Putchoor. It makes admirable household fuel, grows rapidly, and has the merit of, when cut down, springing up again.

Another attempt will be made with the Yellagherry plantation. If it again fails, it should be given up as the climate is very feverish.

SECTION III.

6. *License and Voucher Forests.*—The gradual introduction of the depôt system, which will be still further extended this year, will, I hope, cause a diminution in the number of licenses issued. Those to be granted free to the forest and agricultural population must, of course, remain, but I would like to see those on payment entirely put an end to. They and fires are the bane of the forests.

SECTIONS IV and V.

Yield of Forests and Financial Results.—The falling off in the revenue derived from the forests during the year under report was really only Rupees 7,713-5-6, and I think that Mr. Brougham has satisfactorily accounted for this. The receipts notwithstanding were in excess of the estimate.

SECTION VII.

General Remarks.—I have nothing to add to Mr. Brougham's observations under this head.

I have the honour to be,
Sir,
Your most obedient servant,

(Signed) F. PRICE,
Acting Collector.

[Enclosure 1.]

Salem Deputy Conservator's Office,
6th May 1873.

From

J. B. BROUGHAM, Esq.,
Acting Deputy-Conservator of Forests, Salem,

To

The Collector and Conservator, Salem.

Sir,—I have the honour to submit the Annual Report, together with the usual accompaniments, of the Salem forests, of which I have been in charge throughout the year.

SECTION I.

Inspection Tours.—Having suffered severely from fever in April, I was unable to spend more than eight days in the district, during which time I was engaged posting peons for the protection of the Government jungles adjoining the Vellacooty Jaghire. In May I inspected the plantation on the Shervaroy Hills and the reserves, the Baloor, Thoombul, Pethinaikenpolliem, and Ahtur Tannahs, and the Urunth and Peria Kulroyan Hills, on the latter of which I spent four days. In connection with my visit to this place I noticed most jungle on the slopes and upper knolls. The table land and valleys on the hill were being extensively cultivated by the Mullialies under the ponnakadu system. The general character of the jungle is straggling, and of the description of timber I chiefly observed Karangally, Parambay, Nummai, Kurrypillay, and Thuringi. Descending the hill through the village of Shengadapoothoor I noticed that the storm of the 2nd had done great damage in the jungles. Several clumps of bamboos and trees and saplings of different description of timber had been blown down, and in the valley to the right of me the damage I observed was much more. On the slopes there were some finer large Neem and Karangally trees blown down, which would have made excellent logs or planks. I endeavoured to get the timber out, but from its position it was impracticable to do so ; and to have had it sawn into small dimensions and brought out would have cost more than the wood was worth. On the day of the storm I was on the Shervaroys on a visit to the plantation, and although the Ahtur and Salem ghauts and the jungles in the Periacombay direction suffered to some extent, the plantation was only slightly damaged. Several cattle in and around Yercaud and on the ghauts died from the severity of the weather. Eleven to twelve inches of rain was, I believe, registered on the first day, and on subsequent days between seven to nine inches. In my visit to the Peria Kulroys I observed some boundary stones and a clearing along the slopes nearly up to the top of the hill, and on inquiry ascertained that it was an encroachment by the Muttadar of Noyamallai. The Tahsildar of Ahtur hearing of this before my visit to the place prevented the Muttadar accomplishing his end, which was to have incorporated these slopes with his lands. Having been taken bad with fever I was unable to prolong my inspection of these hills and the Chinna Kulroyan Jaghire, but from what I saw of the latter a lease is desirable. The jungles on the slopes of the hills, I believe, belong to Government and the upper forests to the Jaghiredar. Timber cut in the Jaghire lands has, in consequence, to pass through the Government jungles and if it is more convenient to obtain the wood from the latter place, it could easily be done either with or without the complicity of the Tannah peon. In the latter case, the wood is, of course, covered by a Jaghire pass. The Chinna Kulroyan Hills have now passed into the hands of a new lessee, Soobramanien Chetty, who holds it on an agreement for twenty years. The scigniorage levied on timber by the contractor is about one-half or a third below the Government rates. In June I inspected all the tracts from which the Railway Company were being supplied with wood fuel, the jungles bordering on the Kadthoor Mutta and the Mullapooram plantation. In the last named I spent more than a week superintending the thinning of the trees and other work connected with the improvement of the plantation. In my inspection of the tracts from which the Locomotive Department of the railway obtain their fuel, I had occasion to find fault with the contractors for only removing the branches of the trees and allowing the trunk, which, in many cases, would at least yield a bandy-load of fuel, to remain in the jungles. As a rule, the trees were to be felled three feet from the ground. To produce fine coppice it is necessary to cut the trees down to the ground and under, with a view to raise new roots, etc. In this country, however, it is attended with some drawbacks, the most formidable being the grazing down of the same by cattle and goats before the shoots come to any maturity for felling.

On the 12th July I met the Assistant Collector at Vadavumputty in the Salem Taluq, Womalore Division, for the purpose of forming three new reserves. This work occupied some time in consequence of our having had to change the boundary of the Ammanary reserve three times. In August I visited the Periacombay jungles and superintended the transplanting of some plants in the plantation of Mullapooram. In September I held auction sales of timber at Tripatore and Vaniembady, and afterwards inspected the Putchoor plantation, the Poodoor

reserve, and the jungles adjoining the limits of the Kangoondy Zemindar, and inspected and handed over a new block of jungle to the contractor supplying the Jollarpett Station with fuel. In October I visited the Ammanary, Kooriap Combay, and Pellapully reserves, and camped for nine days at Mullapooram for the purpose of superintending the operations in the plantation and of inquiring into certain complaints against the Overseer Mr. Coxe.

In November I again visited the Ammanary reserve with a view to investigate the complaint of certain villagers against the contractor who, it was alleged, had fenced in more jungle than was really handed over by the Assistant Collector, and travelled through a portion of the

The expenditure on the whole has been Rupees 1,709-5-3, or timber Rupees 848-5-3, Sandalwood Rupees 818-8-0, and forest-products Rupees 42-8-0.

Tripatore.—The forests of this range have been in charge of Mr. Franklin, and during the year there were felled timber cubic feet 5,716-7-5, Sandalwood maunds 164, lbs. 23 ; Kuply maunds 41, lbs. 7½ ; Bees' wax lbs. 21 ; Honey maunds 7, lbs. 16 ; Gall-nut maunds 132, lbs. 10.

Contemplated Operations.—The contemplated operations are to fell and remove to depôt timber, Sandalwood, etc., according to the requirements of the market and the yield of the forests. The construction of a new ghaut in the Denkanicottah Range in place of the old one and opening new and repairing old roads to facilitate the working of different forests.

B, Fuel Reserve.—These were, for a short time, under the charge of Mr. Coxe, but as he did very badly, his services were dispensed with by the late Collector and Conservator, and they have since been superintended by Overseer Appavoo Pillay.

During the year there were 713 plants put out in the A, Reserve, besides about 9 acres of land ploughed up and broadcast with Babul, and 208 yards of stone fencing repaired. The plants put out are in fair condition, and the broadcast sowing has partially succeeded. The high grass in the reserve threatened much damage in case of a fire, and as it would have taken a large sum of money to keep the same down by cutting, I, in consultation with the Assistant Collector, permitted cattle to be grazed in it during the year, and I have not been disappointed in the immeasurable good it has done. The ryots of the nearest villages only have been permitted to graze their cattle within the enclosure, and Mr. Knox was so good as to give an Isthiarnamah in the villages of Vadavumpatty and Kanavapoothoor, and to publish certain rules for the information of the ryots who availed themselves of the advantage opened to them. There was a clause or condition in the rules holding the people answerable for any damage, and that cattle should only be driven in and out of the gateways, and that no knives should be carried into the reserve. There were a few transgressions during the year, but as the Forest Department were prompt in bringing these cases to the notice of the Assistant Collector, that officer made the people feel that he would not take a lenient view of the offences, and intimated to them that if it continued the permission would be withdrawn. This had a very practical effect ; and, in a few days, the breaches in the fence were repaired, and since there has been nothing to complain of. Several bandy-loads of dead wood were removed out of the reserves by the Fuel Contractor of the Salem Taluq. This was the only remedy left open, by which I hoped to get rid of all or a portion of the useless wood, as I found that, if it were done departmentally, there would be no market for it (the ryots refused to buy it), except it was carted to Salem, and then the price may not have covered the cost of collecting and carriage. There may be some objections to allowing the contractor into the reserve for fear of the damage that may be committed by his people ; but as I make the reserve watcher accompany the cartmen and allow no knives into the reserve, and the wood to be picked up and brought out of the fence and then chopped and put into the bandy, there can really be no reason for alarm. The bamboo jungles on the slopes of the hill east of the Vadavumpatty village spontaneously took fire last month (March), but as the grass in the reserve was well eaten down by cattle, there was no damage to complain of. Expenditure has been Rupees 157-1-8.

In the B, Reserve there were 280 chains of channelling excavated and sown up with Babul, besides 600 pits dug and planted with different descriptions of trees. The measures adopted for the improvement of this reserve have not all proved favourable. The seeds in the channels germinated badly ; but the condition of the transplanted trees is favourable.

The expenditure during the year has been Rupees 309-10-8.

C, Reserve.—This includes the land known as the Mullapooram plantation. During the year there were 40 acres ploughed up and broadcast with Babul, 258 chains fencing repaired, and about 3,385 plants of different descriptions planted out in pits. The broadcast sowing has succeeded very well, but among the transplanted trees for the past two months there have been many casualties. I had hoped to have brought 100 acres under the plough during the year, but there was some trouble in obtaining the services of ploughmen, and it was only very late in the season that I succeeded in hiring a sufficient number to plough up the 40 acres alluded to above.

jungles on the Harroor side. At the request of the Collector and Conservator of Forests on the 6th December I proceeded to Oossoor, and was engaged there with that officer for some days discussing forest matters ; afterwards I proceeded to Denkanicottah and inspected the timber yard and office of the Overseer, the Senjeeveramanoor Sandalwood tract, and a few sites selected for a Sandalwood plantation at Kanavainagasundaram and Samy Yaree at the foot of the Melgherry Hills. On my way to the above places I saw a portion of the Namasoondrum and Curculnuthum Agraharams. The land I inspected at Kanavainagasundaram was by far the best adapted for the description of plantation we intend to start and the natural growth of Sandal was far in excess of that seen at Samy Yaree. There, however, appeared to me to be more difficulty in the way of procuring water, but as wells might be sunk anywhere in the land, it has been taken up in preference to the other tract ; at the same time, I considered the advantages of a good road to the Melgherries. At present there is only a rough bandy-track, very difficult to get over, and I would, therefore, request your favourable consideration to my suggestion contained in letter No. 223, dated 27th January 1873.

From the 15th to 30th January I travelled through the Munjavaudy and Pulliputty forests, and the Sholapady jungles on the banks of the Cauvery. This visit was made with the express purpose of seeing if the Thuringi jungles near the Sholapady village, and here and there along the banks of the river, could be worked within certain rates so as to supply the Railway Company with fuel. There is a good road from Womalore to Maichary, a distance of 11 miles ; but up to the river there is no road at all, except a rough foot-path. The country about here is very undulating and mountainous, and the Thuringi tree is most plentiful in the deep hollows and little hills. To utilize the wood, it would be necessary to construct one main road, about 10 or 11 miles long, from Maichary to Sholapady, and several minor ones from different points on the principal road to the jungles which would cost a large sum of money ; but I am doubtful if the yield from the timber would compensate or in any way make up for the outlay. The wood, in close proximity to the river, might be floated to Erode, but it is unadvisable at present to attempt it until the scarcity is felt of obtaining this article in the vicinity of the line, and until it becomes necessary for the Railway Company to offer rates in proportion to cost.

In February I accompanied the Collector and Conservator to the Shervaroys, and availed myself of the opportunity of pointing out how, in a few years, the scarcity for bamboos would be felt in the district in consequence of that article seeding so freely, and suggested that the same may be immediately brought under the depôt system, which would prevent any indiscriminate felling, and, at the same time, injury to the jungles. The Conservator having fully seen the necessity of this measure, has permitted me to work the jungles in the Salem Taluq departmentally. It is proposed to introduce the same course in the other taluqs, and to cut as much of the seeding bamboos as possible, and to store them with a view of meeting coming demands. In this month I also inspected the Yairymullai jungles and the jungles of the Kadathoor Mutta. The Muttadar of this place has apparently encroached on one of the slopes of the Shervaroys and included about 6 square miles of land in his Mutta estimated, at the lowest, at Rupees 30 per acre. I have brought the circumstance to the notice of the Collector, and have reason to suppose that the matter is forming the subject of an inquiry.

In the month of March I inspected the jungles near Cadiambutty and the Javadi Hills. Having got a few attacks of fever at the last-mentioned place, I could not bear exposure, and was

obliged to return to Salem. At Allengayem, Perloor, and the adjacent villages in the plain and all the hill villages numerous deaths occurred from fever, and since the Head Assistant held Jammabundy at Allengayem, medical assistance has been provided for the relief of the sufferers.

SECTION II.

A, Reserved Forests. *Denkanicottah.*—Overseer Mahomed Ally has continued in charge of this range during the year, and I have much pleasure in stating that he has conducted the duties in a most efficient and painstaking manner. During the year there were felled and stored cubic feet 2,108-9-10 of timber and maunds 2,249 lbs. 21½ Sandalwood, besides the under-mentioned forest produce :—

Kuply dye lbs. 1¼ ; Puply maunds 12, lbs. 8½ ; Bees' wax maund 1, lbs. 18 ; honey maunds 8, lbs. 18¾ ; Gallnuts maunds 10 ; and Seeakoy maunds 3.

Ammanary Reserve.—The jungle out of which this reserve was carved is situated in the middle of a plateau, about 6 or 7 miles from the Ahtur Railway Station, and contains about 1,280 acres. The expenditure incurred on the same during the year has been as follows:—Stone-wall fencing Rupees 658-4-0, pay of watcher for six days in February 1873, Rupees 1-4-7.

Pellaputtgcombay.—This reserve opens to the south-west of the Ahtur ghaut, and is, in extent, nearly 4 square miles. Situated as it is in a ravine, it needed no fencing beyond a ditch or wall across the mouth of the valleys.

Kooriapoocombay.—This tract is situated about 7 miles south-west of the Mullapooram station, and runs some distance into the hill, and is, in extent, about 3 square miles. This and the above reserve were fenced during the year, but as I was not satisfied with the work, payment for the same was withheld till the contractor altered the defects pointed out. The expenditure on the two during the year is therefore *nil.*

C, Plantation. *Shervaroy Hill.*—This plantation has not been extended during the year, but the condition of the trees planted in previous years were duly attended to, and were weeding, etc. No improvement is noticeable, and nearly all of the plants are stunted, some having been attacked by the Goatmoth. The Eucalyptus, however, flourished nicely and blossomed in January. The Belgaum Wallnuts also have grown well, and seem adapted to the soil. In the current year I purpose growing some Teak and planting it about Goondaloor, where I have reason to believe it will take.

Putchoor.—This plantation is situated in the plains between the stations of Jollarpett and Coopum on the Bangalore branch. Although during the year the whole of the land was ploughed up and broadcast with the Babul seed, still I regret to say its condition has not improved to any appreciable extent. The seeds germinated very well, but whether from the heat or other causes the plants began to die out I am unable to conjecture.

Mullapooram.—I have dealt with this plantation under C, Reserve.

Yellagherry.—During the year a small Sandalwood plantation was started on these hills in the Tripatore Range. Four thousand pits were dug and planted up, but as it was difficult to obtain labour to water the plants, and the Overseer did not give it the attention he might have done, it has not succeeded so well as my expectations led me to anticipate. A great many casualties occurred, but I hope to have these re-placed. The surviving plants average in height 4 to 6 inches.

A Sandal nursery was also started during the year in the Denkanicottah Range, with a view to improve the Senjeeveramanoor tract. A piece of land has been taken up at Kunavainagasoondaram at the foot of the Melgherry Hills for the purpose of opening out a plantation, and operations will soon commence. With a view that the plantation should be started on some principle, I sent the Overseer to Coimbatore for the purpose of visiting some of the plantations under Colonel Morgan's charge, and seeing the method of planting pursued by his Overseers. This plan will not be without results, as Mr. Mahomed Ally is an intelligent and painstaking man, and will be sure to profit from his visit to that place, and in this Overseer's hands I am pretty confident of the success of the undertaking.

SECTION III.

License and Voucher Forests.—The subjoined statement exhibits the removals under licenses and free in the Denkanicottah, Tripatore, and Salem Ranges during the year :—

Divisions or Range.	On License.						On Free Passes.			
	Cubic feet of Timber.	Bandy-loads of Charcoal.	Bandy-loads of Bamboos.	Bandy-loads of Barks.	Bandy-loads of Firewood.	Tons of Engine-fuel.	Cubic feet of Timber.	Bandy-loads of Firewood.	Bandy-loads of Bamboos.	Bandy-loads of Charcoal.
Denkanicottah ...	10,400	210	4,612½	162	2,799	.....	21,024	2	472½	.....
Tripatore	22,216	400	2,454	278	7,046	Tons. lbs. 4,802 1	27,360	.....	756	.....
Salem	17,784	1,379	4,489	48	6,543		5,200	.....	171½	.....

SECTION IV.

Yield of Forests.—In addition to the above, the yield of the forests during the year has been as follows :—

Name of Range.	Timber.			Sandal-wood.	Firewood.		Bamboos.		Charcoal.		Barks.	Forest Produce.
	Departmentally.	On License.	Free.	Departmentally.	On License.	Free.	On License.	Free.	On License	Free.	On License.	Departmentally.
	C. FT.	C. FT.	C. FT.	MDS. LBS.	TONS. LBS.	TONS	BANDY-LOADS.	BANDY-LOADS.	TONS.	TONS.	BANDY-LOADS.	MDS.
Denkanicottah...	2,108-9-10	10,400	21,024	2,249-21½	1,250-8	½	4,612	472½	93½	...	162	85-21½
Tripatore.	5,716-7-5	22,216	27,360	164-23	3,146-8	...	2,454	756	178½	...	278	182-4½
Salem ...	.....	17,784	5,200	.....	2,920-0	...	4,489	171	615½	...	48	.....

SECTION V.

Financial Result.—The financial results for the year, Rupees 64,233-12-4, being Rupees 16,269-11-6 less than last year, and Rupees 4,233-12-4 above the estimated return or Budget-estimate. Rupees 3,556-6-0 being the value of 1,087 maunds 22 pounds of Sandalwood has not been credited in the accounts for the year, as the money was paid into the treasury by the purchaser of the wood at the end of March, and consequently could not appear as an item in the year. The receipts for this year would have been quite as satisfactory as 1871-72, but as the Railway Company withdrew taking fuel from us for some months, revenue between Rupees 8,000 and 9,000 was lost to the department.

SECTION VI.

General Remarks.—During the year there were four timber depôts established in the Tripatore Range, and the timber felled and stored amounted to cubic feet 5,716-7-5, value Rupees 4,419-0-2 ; the sales, cubic feet 3,435-10-2, value Rupees 2,883-4-2.

In the Denkanicottah Range, the timber receipts were cubic feet 2,108-9-10 ; sales cubic feet 2,944-8-2, value Rupees 2,651-10-5, of this quantity Remount Agent received cubic feet 230-1-10, value Rupees 188-9-8.

With a view of clearing much of the dead firewood in the forests which aggravates, to a great extent, the annual fires in the jungles, I, in consultation with the Collector and Conservator farmed the same during the year under review. The right in the different taluqs were sold separately and realized as follows : Salem, Rupees 2,245 ; Tripatore, Rupees 707-8-0 ; Uttenghiri,

Rupees 105; Kistnagherry, Rupees 40-8-0; Oossoor, Rupees 293; and Darampoory, Rupees 302. In the agreement a clause is provided binding the contractors to sell bandy-loads, bullock, and ass-loads at certain prescribed rates. This was done with a view that the contractors would not impose on the poorer classes and collect money from them more than the article was worth, and what it used to realize before the contract system. Bamboos during the year were brought under the depôt system.

This was done in view of a double purpose; the first to protect the jungles from injury, and second to utilize the seeding bamboos which must otherwise decay in the forests. Under the license system efficient control could not be exercised over the people, and it would have been a matter of considerable difficulty to induce them to fell only the seeding articles.

Forest Offences.—236 cases occurred during the year, out of which there were only 28 acquittals.

Conduct of Establishment.—With a few exceptions, the conduct of the establishment has been good.

Health of Establishment.—Fever was more prevalent and severe during the year under review than in previous years but no deaths occurred.

I have collected and dried flowering specimens of different trees and shrubs, and have a pretty large collection of seeds and gums for office specimens, as well as for supplying the Mauritius and other Governments. I am also adding to my specimens of woods, and shall endeavour to make the collection of each kind complete by preserving the flowers, gums, seed, fibre, bark, etc., pertaining to each variety.

I have the honour to be,
Sir,
Your most obedient servant,

(Signed) J. B. BROUGHAM,
Acting Deputy-Conservator of Forests.

SOUTH CANARA COLLECTOR'S OFFICE,
MANGALORE, 13*th August* 1873.

No. 1,315.

From

H. S. THOMAS, ESQ.,
Collector of South Canara,

To

J. GROSE, ESQ.,
Secretary to the Board of Revenue, Madras.

SIR,—With reference to the Board's Proceedings, dated the 8th May last, No. 746, I have the honour to submit herewith my Deputy Mr. Cherry's report on the administration of the Forest Department of this district during the past official year 1872-73, accompanied by the prescribed annual statements.

2. *Supervision.*—It will be observed that the district was long without a Deputy-Conservator.

3. *Revenue.*—The falling off in the anticipated revenue, arising from the Public Works Department having purchased sawn timber in the Malabar market, is highly unsatisfactory. I cannot see that there should be any difficulty in giving the Public Works Department sawn timber if they prefer it instead of rough logs, and arrangements must be made for its being properly seasoned. I have instructed Mr. Cherry to give his attention to these points. I have already

placed at his disposal a part of the Mangalore quay to be used for timber depôt, and will add to it by annexing a portion of the adjoining private ground which cannot at present be purchased, the right of ownership being in dispute between certain parties who have resorted to a Civil suit to settle it.

4. *Timber Expenses.*—All work connected with the dragging, etc., of timber is at present done by hired elephants and cooly labour, and the system of contracts has not yet been tried. Major Beddome specially advised this during his tour in this district; but Mr. Cherry states that the elephant owners could not be persuaded to take up contracts. I have, however, no doubt that if the Forest Department exerted itself properly, and somewhat liberal rates were offered at first, persons could be found willing to execute forest work on contract. I have already instructed Mr. Cherry to try the system, and the Tahsildars have orders to give their assistance in procuring contractors.

5. *Depôts.*—Regarding timber depôts required at the marginally noted places, I am only awaiting Mr. Cherry's report as to the particular sites wanted, and if Government ground is available in each case. If no Government ground is available, I have desired him to ascertain, in communication with the Tahsildars, the probable cost of acquiring private land, and the subject will be disposed of on receipt of his report.

Kasargode. Pane-Mangalore.
Kallyanpur. Kundapur.

6. Planting operations were carried on on a small scale, and confined to putting down 22,280 Teak seedlings in the vicinity of the Parapa plantation in Kasargode. The nursery for a Casuarina plantation alluded to in paragraph 16 of Mr. Cherry's letter is near Mangalore, and in proximity to the Casuarina tope alluded to in my letter to the Board, dated 10th January 1873, No. 690.

7. The financial results of the year's operations are embodied in Statement A, accompanying Mr. Cherry's Report. The total receipts from all sources amounted to Rupees 23,596-7-10, and the expenditure to Rupees 20,248-13-7, leaving a net profit to Government of Rupees 3,347-10-3. The stock of timber in hand was increased by Rupees 6,587-1-4.

8. On the subject of the revision of the Forest Establishment of this district, I have already addressed the Board in my letter, No. 1,178, dated 23rd July 1873.

I have the honour to be,
Sir,
Your most obedient servant,
(Signed) H. S. THOMAS,
Collector.

[ENCLOSURE 1.]

DEPUTY-CONSERVATOR'S OFFICE,
MANGALORE, *30th June* 1873.

Report No. 332.

From

J. W. CHERRY, ESQ.,
Deputy-Conservator of Forests, South Canara,

To

H. S. THOMAS, ESQ.,
Collector and Conservator of South Canara Forests.

SIR,—In accordance with instructions conveyed in the Revenue Board's order, No. 746, dated 8th May 1873, I have the honour to submit, in duplicate, the Statements A, B, C, D, and E, called for, showing the results of forest operations in South Canara during the past official year. In addition, I have added further information in Statements F, G, and H, also in duplicate.

2. *Supervision.*—The first half of the year I was engaged elsewhere in the prosecution of ex-Forest Overseer Veerasawmy Pillay, and did not take up the work in my range until the middle of September last. During my absence Mr. Forest Overseer William Carroll had the charge of my Office, and creditably maintained the orders of operations entrusted to him.

3. *Tours of Deputy-Conservator.*—In October and November I spent six weeks in the Cundapur and Udipi Taluqs; in February I travelled through the Kasargode Range; and in March made a short visit to Uppenangadi.

4. *Remarks.*—The results of the year's labour are shown in detail in the several form attached, in which are also entered explanatory remarks where they would appear useful.

5. The following points regarding receipts and expenditure require to be noticed.

6. *Revenue.*—The revenue realized is below anticipations and less than the Budget-estimate by Rupees 11,400.

7. *Sales of Depôt Stock.*—This is mainly due to the fact that the Public Works Department have failed to purchase from us the timber that it was expected from their indents they would take.

They have preferred to supply themselves with sawn timber from Malabar. The amount thus lost to us is, I believe, about Rupees 5,000. We have also failed to realize, I calculate, some 5,000 Rupees on timber sales in Mangalore by having had to store our timber on the sea-side of the backwater where timber merchants and other purchasers did not care to journey. That they lacked the little energy necessary to take them over the backwater to inspect and select the timber is beyond my power of explanation; but I feel sure this has been the reason of a large loss to us, and am confident that had the timber been stored where it is at present (on the Bunder and under the notice of passers-by) we might have trebled our sales to private parties.

8. *Sandalwood Oil-still and Firewood Rent.*—Compared with last year's receipts, there is a falling off in the amounts realized under "Sandalwood Oil-still Rents" and "Purchase of Firewood for ditto" to the extent of about 1,000 Rupees under each head. This was due to my having refused to permit the working of the Sandalwood oil-stills anywhere, where facilities of carriage made it easy for the farmers to smuggle firewood for consumption elsewhere, and for other purpose than it was intended for.

9. *Catechu Jungle Rents.*—Owing to a dearth of ripe trees, there were no sales of farms for the working of Catechu jungles last year. A sum of Rupees 3,300 odd is, however, shown under this head, being the arrears collected on rents due in 1871-72.

10. *Expenditure.*—Under expenditure on conservancy and working, there is a saving of some 2,500 Rupees in the Budget-estimate. This is owing partly to a saving in expenditure on plantations, partly to a smaller quantity of forest-produce being added to stock than was contemplated, and partly, I am glad to be able to state, to reductions in the cost of operations connected with the stock.

11. *Timber Sawing.*—The operations connected with stock (besides those of felling and preparation shown in Statement B) consist of 2,530 square feet of timber sawn in the forests for convenience of carriage, at a cost of 85 odd Rupees. After considerable difficulty, sawyers were induced to work, and this, I believe, is the first success that has attended our efforts to make men saw in our ghaut forests. The timber under notice has been in the forests for years, as, owing to their great size, it was calculated to prove unremunerative to carry them to market.

12. *Timber Cartage.*—1,989 cubic feet of timber and 9,505 bamboos have been carted during the year at a cost of Rupees 640 odd. This carting has principally consisted in the removal of 1,020 cubic feet of timber from the Soolya and Parapa jungles to Pane-Mangalore, a distance of about 35 miles, at a rate of 7 Annas a cubic foot. This is the first time that carting on a large scale in this district has succeeded. The difficulty in getting contracts taken up will account for the high rate of carriage, which high rate was granted especially as an inducement to contractors to make the attempt, and with a feeling of confidence that, if only attempted, the results would prove so far satisfactory as to enable me to hold out for a lower rate

on the next occasion. Further carting operations in this year have shown that my confidence was not misplaced, as I have lately carted timber, under similar circumstances, at the rate of 5 Annas per foot.

13. *Timber Dragging.*—20,123½ cubic feet of timber and 11 boats have been dragged to rivers banks from the forests at a cost of Rupees 2,732 odd. This dragging item is always a heavy one, and adds 2 or 3 Annas a cubic foot to the cost of our timber. The work is performed by hired elephants, assisted by cooly labour. With hired elephants the work might be done at less cost, could we persuade the elephant owners to take up *contracts*; but this they won't do, and as I have no other means of dragging my timber I am in their hands.

14. *Timber Floating.*—Floating operations were restrained last year, as I wished to get coast depôt arrangements properly organized before bringing stock down. At present land for our timber depôts has only recently been handed over to us at Mangalore and Uppenangadi. There are still depôt requirements to be satisfied at Kasargode, Pane-Mangalore, Callianpur, and Kundapur. The expenditure in floating was Rupees 767 odd, of which the amount spent in carriage of timber alone averaged between 3 and 4 Annas per cubic foot for carriage to the coast. This item is also a heavy charge on the cost of our timber operations, but is reasonable if the difficulties arising from the ill-adapted nature of the rivers within and for some way beyond the ghaut forests is taken into consideration. If we can persuade contractors to take up the work, and they after a time get accustomed to it, we may hope to reduce the cost of floating.

15. *Cattle.*—Four pairs of bullocks have been added this year to the cattle stock at an average cost of Rupees 102 a pair.

16. *Plantations.*—Operations under plantations have been as follows :—

22,280 Teak seedlings have been set out in the Parapa neighbourhood in clearings prepared the year before, and further clearings and pits have been arranged for the reception of some 15,000 more plants this monsoon.

200 failures in the plantation near the Parapa, but have been made good, and the plantation weeded, thinned, and pruned.

A nursery for a Casuarina plantation on the sea coast near Mangalore was started, and has turned out some 9,000 healthy plants which are now being set.

I have the honour to be,
Sir,
Your most obedient servant,

(Signed) J. W. CHERRY,
Deputy-Conservator of Forests, South Canara.

MALABAR COLLECTOR'S OFFICE,
TELLICHERRY, 22*nd August* 1873.

No. 201.

From

A. MACGREGOR, ESQ.,
Collector of Malabar,

To

J. GROSE, ESQ.,
Secretary to the Board of Revenue, Madras.

SIR,—I have the honour to submit my report on the administration of forests in this district for the official year 1872-73, in conformity with the Board's Proceedings, dated 8th May last,

No. 746, and to forward herewith the reports of the forest officers of the respective ranges, with their accompaniments, as directed in the 3rd paragraph of the order above alluded to.

2. The general control of the Malabar forests was assumed by the Collector from the 1st October last.

They consist of the ranges known as Nilambur, Wynaad, and Chenat Nair.

3. The Nilambur forests consist of certain tracts, measuring 13,703 acres, leased perpetually from certain Hindoo land-owners in 1840, the forests being at the time exhausted. Year by year the natural forest has been felled and planted up with Teak. The area was in 1871 increased by the purchase of a block of 624 acres, and during the year under report the purchase of 4,200 acres of additional natural forest was effected, and 88 acres of plantation, raising the total area to 18,615 acres, of which, including the planting of 1872, 2,790 acres are planted with Teak. Having been carefully nursed for many years and being traversed in all directions by navigable rivers, the natural forests now yield a fair annual revenue from timber, not first class but of fair quality. It is sold in the Calicut market for shipment to Bombay, Arabia, and the Persian Gulf.

4. The sale of thinnings removed from the plantations yields a considerable and increasing source of revenue, and bamboos, which are necessary for the rafting both of timber and saplings, realize a fair amount when afterwards disposed of at the market depôt.

5. The survey of this range was completed and maps lithographed this year.

6. The Wynaad range consists of three natural Teak forests running along the Wynaad frontier, one north and two south of Manantoddy.

The title to these forests accrued to Government owing to the rebellion of their Hindu owner at the end of last century.

7. These forests contain Teak of splendid growth, but difficult to carry to market. This season, for the first time, advantage has been taken of the improved cart-roads to the coast to send Teak from the northern forest to the Tellicherry market.

The experiment has succeeded, and promises to improve considerably the financial position of the range.

The southern forests are worked to Mysore,—a difficult undertaking, as the logs have first to be carted, then floated, and then carted again.

8. Some other tracts of Government land in Wynaad which produce cardamoms have been taken in hand, and, it is expected, will shortly yield a fair revenue.

The forests in this range have never been surveyed. They are of great extent.

9. The Chenat Nair forests consist of certain escheat lands in the vicinity of Palghaut. They are sufficiently near to the line of railway to be considered as sources of fuel-supply for locomotives.

A little planting has been carried on, but is so far reported a failure. During this year the range was added to by purchasing a block of land from a private individual, measuring 1,800 acres, and well adapted for the growth of fuel. The forests and firewood blocks will, in future, be styled the "Palghaut Forest Range". The tract is well within the monsoon, and I consider that planting is a needless expenditure of money, and that by fencing and strict preservation a large supply of firewood, at a very low cost, will result from spontaneous growth.

10. It is proposed to copse by compartments, leaving the Teak, of which throughout there is a fair sprinkling, as standards. The demarcation and survey of this forest range is an operation of most pressing necessity.

11. The range, as above described, has hitherto been amalgamated with two forests and a fuel reserve of the Coimbatore District, and the accounts are not so prepared as to admit of the respective expenditure and outlay on each being arrived at. The proper accounts, therefore, of this range will date from the current official year, and nothing can be inferred from the figures introduced into this report.

12. The total expenditure on the forest ranges amounted to Rupees 43,975 as shown in the margin. The increase in Nilambur under Establishment is due to the fact of a Probationer having been attached to the range as a supernumerary, and under Working Charges to the large area planted this season. The working charges are heavy under the system pursued, which is to fell, float, and cart all timber to the market depôt. The expenses might be indefinitely reduced either by selling to merchants in the forest or selling the trees as they s tand; but under such a system the Government profit would be much diminished in addition to other disadvantages. If, however, the Budgets are to be cut down as they have been in the current year, there will be no alternative, and it will be necessary to curtail planting operations as well.

No.	Forest Ranges.	Establishment and Contingencies.	Working Charges.	Total.
		Rs.	Rs.	Rs.
1	Nilambur	9,270	17,041	26,311
2	Wynaad	6,955	4,189	11,144
3	Chenat Nair ...	1,709	4,811	6,520
	Total...	17,934	26,041	43,975

13. From the marginal statement, it will be seen that the total receipts of the three ranges was 41,428, from which must be deducted a diminution in stock of Rupees 14,067, leaving a net earning of Rupees 27,361. The excess expenditure over income for all the ranges is thus Rupees 16,614. In regard to the Nilambur and Chenat Nair forests, both *planting* forests, the deficit is balanced by a prospectively enhanced revenue. In Wynaad there is a net profit of Rupees 72.

Ranges.	Timber Sales.	Miscellaneous.	Total.	Difference in Stock.
	Rs.	Rs.	Rs.	Rs.
Nilambur	*17,139	6	17,145	— 2,277
Wynaad	21,599	1,844	23,443	—12,329
Chenat Nair	840	...	840	+ 589
Total..	39,578	1,850	41,428	—14,067

* Including Rupees 7,630 from saplings.

14. The profit has been computed in the old system of valuing stock, which alone appears reliable for arriving at the financial results of a year's operations.

The new system under which it has been ordered that stock should be valued, viz., according to the expenditure on it, may have its uses, but under it the stock account no longer furnishes any true criterion as to the success or otherwise of operations.

Two logs lying in the market depôt of equal value stand in the accounts at greatly varying rates, according as they happen to have been growing near or far from water carriage, etc.

The unsatisfactory result in Wynaad, where a larger income might have been expected, is, in my opinion, to be attributed to the fact of the forest having been for many years worked carelessly, unskilfully, and at times dishonestly. Matters cannot come right all at once. Under the able and energetic management of Mr. Peet, there is every reason to anticipate greatly improved system, which, in a year or two, will be indicated by increased profits.

15. Having given a general view of the forest operations of the district, I now proceed to review the reports of each range in detail.

16. Nilambur Timber from natural Forests. *Felling.*—The Deputy-Conservator having been absent on leave at the beginning of the year, the management was undertaken by the Collector, so that the new system may be regarded as having been practically in effect in regard to this range throughout the year.

The number of logs felled was 530, of which 312 were Teak. The market for the inferior timbers having declined, and the result of the previous year's operations in regard to such timber having been unsatisfactory, and the stock in depôt being large, only a small quantity was felled. The logs felled were valued at Rupees 5,825.

17. *Floating.*—Logs to the number of 1,057 were floated to the coast depôt. This included nearly the whole stock of timber felled early enough for the floating season. Some 120 logs of superior Teak could also have been floated had not funds run short. This is not to be regretted, as this will enable us to supply the Department Public Works with some good seasoned Teak this year.

18. *Sales.*—The market depôt was pretty well cleared out, 990 logs having been sold, measuring 19,124 cubic feet, realizing a price of 7,803 Rupees. A further sum of Rupees 1,703 was obtained by selling the 20,276 bamboos used in floating the timber. The market was, on the whole, good, and a sum of 1,509 Rupees was realized in excess of the nominal value of the stock sold. The stock account has been adjusted by deducting the amount of sales less this sum. The financial results, as detailed further on, show an apparent loss of Rupees 1,511. This, however, is explained by the fact that the full market depôt value of the stock brought forward from last year is entered, whereas the stock was lying in the forest depôt and had to be floated to market depôt.

19. *Plantations, Extension.*—The unhealthy character of the site of planting operations in 1870-71 and 1871-72 having led to the planting of diminished areas in those seasons, it was resolved to plant a large block of the land at Chatramboria purchased in 1871. The estimated area planted was 235 acres and the number of seedlings set out was 235,000 by far the greatest number ever planted in one season. The result has been to bring up the average yearly extension of the last twelve years to the regular amount of 100 acres. The soil proved first rate, and the season was favourable for the growth of the seedlings. The only drawback experienced was that, owing to unseasonable and heavy rain-fall in the beginning of May, the growth of weeds, creepers, and grass was promoted, and the task of preventing the seedlings over such a vast area from being smothered by their luxuriant growth was difficult and expensive. The planting was inspected by me a fortnight ago, and the seedlings found healthy and vigorous.

20. *Conservancy of existing Plantations.*—The aggregate area of plantations to be cared for was 2,702 acres. Pruning and thinning have been properly carried out, and creepers and parasites removed, and fire tracing efficiently performed. The only plantations which are somewhat over-run are those at Nellikutta. The area is so small that it is not worthwhile to subject the establishment and coolies to the injurious effects of the climate in the manner that would be necessary if these plantations were thoroughly conserved.

21. *Sale of Thinnings.*—The stock of saplings in hand at the beginning of the year is shown as 10,004, valued at Rupees 5,003. The number of saplings felled during the year was 13,058, valued at Rupees 6,529. During the year 11,229 were sold, which realized Rupees 7,379, and the balance in hand numbered 7,333, valued at Rupees 5,953. These figures are inconsistent, as according to them the number remaining in stock should be larger and the value less. It is believed that the opening balance included 4,500 saplings, which were too small to be saleable, and should have been excluded. The excess value is probably owing to the sales realizing more than estimate. A reference has been made to the Range Officer.

22. Of the working charges a sum of Rupees 10,062 is debited to plantations. To show the financial result of the year in regard to the existing plantations, it is clearly necessary to eliminate altogether the expenditure in opening a new plantation. The establishment charges must also be distributed between the existing plantation, new plantation, and natural forest operations. It would, I think, be a fair proportion, looking at the relative magnitude of operations for the year in question, to assign half the establishment to existing plantations, three-tenths to extension, and one-fifth to natural forest.

Though the expenditure under the last head is large, a good deal is paid to floating contractors, and there is not much labour to supervise. Including supervision, it has been estimated that planting costs 30 Rupees an acre. Taking these data, the result is as follows :—

EXISTING PLANTATIONS.

Expenditure.

	Rs.
Establishment, half	4,635
Miscellaneous, *i.e.*, tools, rent, etc.	512
Working charges	5,793
Total...	10,940

Receipts.

	Rs.
Sale of saplings	7,378
Increased value of sapling stock, ... 5,952 — 5,003 =	849
Total...	8,227
Excess expenditure on receipts, being the net cost of conserving 2,456 acres	2,713

Extension, 235 Acres.

Three-tenths establishment	2,780
Working charges	4,270
Total...	7,050

NATURAL FOREST.

Expenditure.

	Rs.
One-fifth Establishment	1,854
Timber expenses	6,221
Miscellaneous	246
Total...	8,321

Receipts.

Timber...	7,805
Bamboos	1,703
Firewood	251
Total...	9,759
Deduct decrease in value Stock ... ...12,012 — 9,074 =	2,938
	6,821
Excess Expenditure...	1,511

23. During the last year Major Pearson, when Inspector-General of Forests with the Government of India, informed me that a correct account of the expenditure on the Conolly plantations from their commencement was a desideratum in view to operations elsewhere, as well, of course, as an essential to the proper estimate of the financial result of the plantations, and requested me to try and obtain the requisite information. In preparing the account great difficulty was experienced, owing to the earlier accounts not having been kept in any great detail, and also owing to the fact that the expenditure and receipt from natural forest was not shown separately. It had, therefore, to be compiled from a scrutiny of the available detailed accounts. The work was rendered simpler as regards the earlier years by the fact that until 1859 there were no sales of saplings, and that up to 1862 there were no working charges in connection with natural forests, the timber being sold on stump fee. By comparing accounts in the Collector's Office and in Mr. Ferguson's, I have, with that officer's assistance, compiled the following return which may be accepted as a near approximation. Up to a certain period I have debited the plantations with

half the establishment, and subsequently with two-thirds as the area of plantation increased and that of natural forest diminished:—

Years.	Establishment.	Working Charges and Contingencies.	Total.	Receipts from Thinnings.	Difference of Receipts and Expenditure.	Acres of Extension.	Acres conserved.
	Rs.	Rs.	Rs.	Rs.	Rs.		Progressive total.
1841-42 ...	567	1,676	2,243	...	— 2,243	...	...
1842-43 ...	338	990	1,328	...	— 1,328	31	31
1843-44 ...	423	1,251	1,674	...	— 1,674	...	...
1844-45 ...	446	1,430	1,876	...	— 1,876	63	94
1845-46 ...	870	1,169	2,039	...	— 2,039	61⅛	155⅛
1846-47 ...	870	1,395	2,265	...	— 2,265	100⅜	256
1847-48 ...	870	1,488	2,358	...	— 2,358	118½	374½
1848-49 ...	870	1,477	2,347	...	— 2,347	182½	557
1849-50 ...	870	1,443	2,313	...	— 2,313	134½	691½
1850-51 ...	870	1,698	2,568	...	— 2,568	132⅛	823$\frac{7}{10}$
1851-52 ...	870	1,094	1,964	...	— 1,964	147⅛	970$\frac{8}{10}$
1852-53 ...	870	2,802	3,672	...	— 3,672	38½	1,009$\frac{5}{10}$
1853-54 ...	870	1,418	2,288	...	— 2,288	55⅛	1,065
1854-55 ...	870	1,544	2,414	...	— 2,414	92⅛	1,157⅛
1855-56 ...	870	1,130	2,000	...	— 2,000	100⅛	1,257⅜
1856-57 ...	870	1,454	2,324	...	— 2,324	79⅛	1,336$\frac{3}{8}$
1857-58 ...	870	1,083	1,953	...	— 1,953	36$\frac{1}{10}$	1,372$\frac{3}{10}$
1858-59 ...	870	608	1,478	...	— 1,478	42⅛	1,415$\frac{3}{10}$
1859-60 ...	870	1,872	2,742	...	— 2,742	39⅛	1,455$\frac{7}{10}$
1860-61 ...	870	1,185	2,055	...	— 2,055	39½	1,495$\frac{1}{10}$
Twenty years Total...	15,694	28,207	43,901	...	—43,901	1,495$\frac{1}{10}$	15,519
Yearly Average...	784$\frac{7}{10}$	1,410$\frac{7}{20}$	2,195$\frac{1}{20}$	...	— 2,195$\frac{1}{10}$	74¾	775$\frac{1}{8}$
1861-62 ...	1,160	2,039	3,199	...	— 3,199	86	1,581$\frac{1}{10}$
1862-63 ...	2,008	3,753	5,761	12,044	6,283	50$\frac{1}{10}$	1,631⅜
1863-64 ...	3,006	6,254	9,260	1,210	— 8,050	81¼	1,712$\frac{5}{8}$
1864-65 ...	2,950	8,993	11,943	16,776	4,833	121$\frac{7}{10}$	1,834$\frac{7}{10}$
1865-66 ...	3,278	9,076	12,354	9,307	— 3,047	56⅜	1,890$\frac{7}{10}$
1866-67 ...	3,656	6,572	10,228	15,647	5,419	128⅜	2,019$\frac{7}{10}$
1867-68 ...	3,684	7,923	11,607	500	—11,107	118⅜	2,138$\frac{7}{10}$
1868-69 ...	4,656	8,486	13,142	9,515	— 3,627	145⅛	2,283$\frac{1}{10}$
1869-70 ...	4,210	5,656	9,866	4,173	— 5,693	53½	2,337$\frac{1}{10}$
1870-71 ...	4,394	8,659	13,053	5,583	— 7,470	74¼	2,411$\frac{1}{10}$
1871-72 ...	4,546	9,929	14,475	843	—13,632	45	2,456$\frac{1}{10}$
1872-73 ...	6,236	13,139	19,375	7,378	—11,997	235	2,691$\frac{1}{10}$
Twelve years' Total...	43,784	90,479	1,34,263	82,976	—51,287	1,196⅛	24,986
Yearly Average...	3,648⅔	7,539$\frac{11}{12}$	11,188$\frac{7}{12}$	6,914⅔	— 4,273$\frac{11}{12}$	99⅔	2,082
Grand Total..	59,478	1,18,686	1,78,164	82,976	—95,188	2,691$\frac{11}{12}$	40,505
Yearly Average...	1,858$\frac{1}{12}$	3,708$\frac{5}{6}$	5,567⅔	2,593	— 2,974$\frac{1}{12}$	84	1,265$\frac{5}{12}$

24. This statement shows that, in round numbers, excluding purchase-money and interest thereon, the gross expenditure on 2,500 acres has been Rupees 1,78,000, and the receipts from thinnings 83,000, leaving a net expenditure of Rupees 95,000, and that an average annual revenue has been realized during the last twelve years of 7,000 Rupees from the sale of thinnings.

25. It will be noticed that this revenue was larger in the earlier years of the above period which may be explained, firstly, by the fact that thinning had been neglected and an unduly large number of trees had, therefore, to be removed within a short time ; and, secondly, by the fact that one or two large purchases were made at a time when speculation was rife in Bombay.

The revenue from thinnings in the long run must be an increasing one. The saplings are classed as follow :—

Average Diameter.	Average Length.	Class.	Average Price.
3½ to 4 inches...	30 to 40 feet ...	Superior	1 to 4 Rupees each.
2½ to 3 ,, ...	30 to 45 ,, ...	1st class	1 to 2 ,, ,,
2 to 3 ,, ...	30 to 40 ,, ...	2nd ,, ...	12 annas to 1½ Rs each.
1½ to 2 ,, ...	20 to 35 ,, ...	3rd ,, ...	6 to 12 Annas each.
1 to 1½ ,, ...	15 to 30 ,, ...	4th ,, ...	1 to 8 ,, ,,

26. In addition to these classes, 400 saplings were brought to depôt this year for which an average of Rupees 5 each was refused ; they are retained for sale this season. These have an average diameter of 3 to 6 inches, and the number of this class annually brought to market must necessarily increase at a very rapid rate.

27. There can be no doubt that if freed from the cost of annual extension and maintenance of young plantations, a very few years would see not only the receipts and expenditure in equilibrium, but a considerable and increasing surplus.

28. The following sums have been paid as purchase-money at the various dates noted :—

	Rs.
1. Trikalayur Divaswam in 1810	8,000 1,000
2. Naduvath Namburi for Chatamboria in 1871	5,000
3. Edawanna Rajah for Amarapolham and Karimpoya in 1872 ...	80,000
Total...	94,000

The figures will, I think, admit of a capital account of the plantations being prepared according to whatever system may be decided on by Government.

29. In a few years the land in the block represented by the payments 1 and 2 will have all been planted up, and this would be a good opportunity of closing the capital account of that section of plantations. The accounts in connection with the new plantation on the new block purchased this year might be kept entirely separate. We should then see beyond possibility of error the actual financial result of a given area of the plantations relieved from the drain caused by annual extensions and by young plantations, on which the expenditure is heavy and returns *nil*. The interest on the purchase-money of the new block would, of course, be debited to the new section.

30. The survey of the Nilambur range has been completed this year, thus enabling the correct acreage to be entered. It is anticipated that great facility in working will be secured by the accurate knowledge now obtained of the shapes of the different blocks. By help of these maps I am now preparing a scheme of roads. A systematic valuation, too, can now be commenced.

31. The range has been as usual under the able management of Mr. Ferguson. Mr. Stanbrough has joined it as a probationer, and has been usefully employed in superintending operations of different kinds. He promises to make a good officer.

32. *Wynaad.*—The Deputy-Conservator's report gives a full account of the working of this range. During the year under report the maistry who was an accomplice in Overseer Turnbull's frauds was convicted and sentenced to two years' rigorous imprisonment and 2,000 Rupees fine, commutable to eighteen months further imprisonment.

33. *Felling Timber.*—Six thousand one hundred and thirty-four cubic feet of Teak have been felled. The operations have been somewhat checked by the fact that a large quantity of timber, some of it felled several years ago, is lying about in the forest. This Mr. Peet proposes to collect and dispose of, and then to undertake felling on a proper system, selecting definite areas where both felling and carting can be more thoroughly supervised. One great evil that has resulted from the scattered character of previous operations has been that the logs have been often depreciated in value by being cut in two or shortened; in the latter case the piece being thrown away. The cartmen are paid by the contractor so much a log, and it is, therefore, worth their while to pay the Kurumber axemen to shorten logs, and when operations were simultaneously going on over an immense area, the supervision was not close enough to check this practice. If possible, the contractor should be bound to pay cartmen by measurement.

34. *Survey and Demarcation.*—The necessity of a proper survey and demarcation of these forests is, with great justice, insisted on by the Range Officer, and should at once be taken in hand. After communication with the Superintendent of Revenue Survey, I shall address the Board on the subject.

35. *Kumery or Takkul.*—When these forests were first assumed by Government they had already been extensively occupied by Chetty ryots as well as jungle tribes, and it was impossible to check a system of cultivation on which many people depended for a livelihood. I have no doubt that arrangements can be made in the course of survey to mark out blocks of valuable forest land where this practice may be wholly interdicted.

36. *Planting.*—Nothing has been done in this line, and looking at the fact that labour and carriage are costly, and that the natural growth shows no signs of exhaustion, it seems undesirable to do anything beyond some experimental planting on a small scale.

37. *Financial Results.*—These are fully gone into by Mr. Peet. There is a nominal balance in favour of the forest of 72 Rupees calculated on the old system, *i.e.*, on expenditure, receipts and difference of value of stock.

This appears to be the most reliable method of calculation, taking the probable market price for timber in market depôt and for timber in forest depôt the market price *minus* probable cost of carriage, having an appropriate figure for each depôt. I am unable to follow the calculation according to expenses incurred.

38. Chenat Nair or Palghaut. *Timber.*—No felling took place during the year. This was partly owing to the forest requiring rest, and partly to a change of Overseers. There are logs valued at 1,351 Rupees entered as stock lying out in the forests. These should be at once collected and brought to market depôt as well as any wind falls.

39. *Fuel Reserves.*—The blocks of fuel reserves alluded to in paragraphs 19, 20, and, 21 of the Deputy-Conservator's report, Section II., form part of the Chenat Nair Range. The natural growth has been supplemented by planting, but the trees do not thrive; the expenditure of 1,245 Rupees was incurred almost entirely in re-placing casualties. Mr. Douglas reports that a thoroughly effective fence is indispensable, and that the bank and ditch with aloe on the top is a failure. The experience of the railway is the same. The weak point of this sort of fence is that the failure of a few plants here and there at long intervals is unavoidable, and that this is quite enough to let in cattle. The only fencing found effectual by the railway in this locality is a 5-wire fence or a loose stone wall with coping set in chunam.

40. The range has never been surveyed, and great uncertainty prevails as to its limits. It is proposed to take this in hand at once.

41. During the year the purchase of a fine block of fuel reserve was negociated, and this is now being taken in hand; the climate and soil are both favourable, and the line traverses the block throughout its entire length.

42. The report on the range is necessarily imperfect, owing to its accounts and working charges having been incorporated with several other forests in the Coimbatore District. I hope to get it well into shape this year, and propose to refer to it in future as the Palghaut Range. The

officer in charge, Mr. Douglas, has done all that he could for the range without neglecting his more important and distant charge on the Anamalays.

I have the honour to be,
Sir,
Your most obedient servant,
(Signed) A. MACGREGOR,
Collector.

[ENCLOSURE 1.]

OFFICE OF DEPUTY-CONSERVATOR OF FORESTS,
COIMBATORE, 18*th June* 1873.

From

C. G. DOUGLAS, ESQ.,
Deputy-Conservator of Forests, Palghaut, etc., Ranges,

To

A. MACGREGOR, ESQ.,
Collector and Conservator of Malabar.

SIR,—I have the honour to submit the Administration Report of the Palghaut Range for the year 1872-73.

2. As both accounts and report unavoidably pertain, in some measure, to forests, etc., not in the Malabar District, I beg to offer a few remarks prefatory to the details, in explanation.

3. Hitherto it has been the custom to submit one general report for Chenat Nair, Walliar, Sholacurray, and Bolumputty, but, as had been resolved prior to the re-organization (*vide* paragraph 29, Section V., in report for 1871-72), the latter was separated from the others on 1st April, an independent fund being sanctioned. The other forests were termed the "Palghaut Range," and worked by the establishment and from the funds provided for "Chenat Nair." A portion of Walliar and Sholacurray being in the Coimbatore District (Chenat Nair lies in Malabar), it is obvious that these arrangements were not in accordance with the *district* administration of this department introduced with its re-organization. In October, however, when the re-organization came into effect, it was found convenient not to disturb the existing management till April 1873, as, at that advanced period of the year, it would have been difficult to adjust accounts so as to correspond with district expenditure.

4. Funds and supervision having been furnished by Malabar, and all accounts having been submitted to the Conservator of that district, it is necessary that this report and the annual accounts should follow.

5. From the commencement of the current official year, the expenditure and control of Walliar, etc., will be amalgamated with that of Bolumputty under the Collector of Coimbatore, while the "Palghaut Range" will contain no forests beyond the jurisdiction of the Collector of Malabar.

SECTION I.

Inspection Tour of the Officer in Charge.—I visited the range in July, August, September, October, and March.

SECTION II.—RESERVES.

A. Reserved Forests.—There has been no felling. A quantity of timber, however, has been added to accounts, which Mr. Lloyd had not measured or charged for in the previous years. The cost is shown in Statement A, under heading No. I., and the value has been added to value of stock in Statement D, and Memo. No. II. I directed Mr. Lloyd's successor to make an inspection of, and re-measure all timber in depôt at close of last year. This has been done, and stock returns amended accordingly.

* *The stock in Chenat Nair* has been increased by 85½ cubic feet of Rosewood and decreased by 32 cubic feet of Junglewood.
Sholacurray stock has been increased by 96-8-11 of Rosewood, 417-8-10 of Teak, and 118-4-5½ of Vengay.

2. Mr. Lloyd's ill-health and subsequent departure on sick leave in August induced me to postpone the felling and other timber operations mentioned in paragraph 9 of last year's report as being more than the Acting Overseer, fresh to the work and unacquainted with the forests, could be expected to do well, in addition to getting up the arrears into which I found work of all kinds had fallen on my inspection in July.

3. The timber lying in forest depôts in the Sholacurray and Walliar jungles should be collected at the Walliar railway station or near the chuttrum on the road to Coimbatore, from either of which places it could be easily sent to Coimbatore, Palghaut, or elsewhere up or down the line if not sold on the spot.

4. The timber in Chenat Nair forest should be inspected and collected. It has lain for years in the forest, and some cut before the department assumed charge may prove worthless.

	Rs.	A.	P.
Value of timber in Chenat Nair forest	1,351	4	0
Do. of do. in Sholacurray.....	4,220	4	8

5. The Sholacurray and Chenat Nair stock are separately entered in Statement D.

B, Fuel Reserves. Walliar.—A sum of Rupees 1,713-9-10 has been spent on this reserve, including, of course, cost of temporary establishment. In 1871-72 the expenditure amounted to Rupees 2,912. A saving of Rupees 1,198 has, therefore, been effected.

2. Two hundred and ninety-nine chains of the trench round the old reserve has been cleared out and repaired and ·68 chains in the new reserve; a block of 40 or 50 acres south of the line taken up in 1872.

3. A fire-path of 537 chains was traced round the old reserve and carefully maintained, the breadth 60 feet, except on the side next the railway where it was as usual widened.

4. One hundred and thirty-five chains were similarly traced in the new reserve. The cost of this work for the two was Rupees 638-4-5.

5. In spite of these precautions a fire took place and swept through a large portion of the reserve without, however, doing any material injury; the plantings having been isolated were untouched. I visited Walliar directly afterwards, and satisfied myself that the fire had broken out *inside* the fire-path; all this has been duly reported. It would be a good plan, and one I intended to carry out last year had funds permitted, to cut permanent traces, 12 or 15 feet wide, across the reserve, so as to divide it into four or more blocks; they would eventually be useful as cart-roads, and, in the event of a fire occurring, would probably be the saving of the reserve, as, by surrounding the block on fire, a gang of men could arrest the flames. They would facilitate work, inspection, and estimate of growth.

6. An old well has been repaired, and a new one partly sunk; cost Rupees 28.

7. Several small nurseries have been made and kept up.

8. The temporary establishment have been employed in re-placing casualties, in clearing young plants, and in preserving the fire-trace in a proper condition; cost Rupees 777-0-7.

9. Casualties have been re-placed from the nurseries with Vapum (*Azadirachta Indica*) Tamarind (*Tamarindus Indica*), and Parambay (*Prosopis spicigera*).

10. This fuel reserve was first formed in the year 1868, when it was enclosed and provided with nurseries; four clear working seasons (south-west monsoons) have, therefore, passed since the completion of these preliminary operations. It measures about 1,000 acres; that is, the block purchased in 1868 is said to contain 960 acres, while the piece of land added in 1872 is estimated at 40 acres.

11. When the department assumed charge, the greater portion of the land was under cultivation; it contained only a few pieces of jungle, where, however, trees varying from 6 to 12 inches in circumference were plentiful, which, it was supposed, would be fit to cut in four years if properly attended to. The influence of the south-west monsoon was expected to ensure rapidity of growth and a constant supply of railway fuel at a moderate outlay.

12. The reserve has been under my observation for three years, and though there has been a marked improvement in the general appearance of the indigenous trees, while natural re-production has taken place to a considerable extent, it is far from realizing the anticipations with which operations were commenced.

13. In 1869-70 Captain Gosling began planting, and attempted broadcast sowing on a small scale. The latter experiment, as remarked by the Conservator in paragraph 77 of his report for that year, was a failure, and I may add that even the planting was not attended with brilliant results. In the three succeeding years during which I have been in charge, efforts have been made to supplement the natural growth in the cleared spaces formerly under cultivation by means of pitting and planting, and although something has been effected the progress achieved has not been, on the whole, encouraging. I am inclined to think that ploughing and sowing has not been sufficiently tested, and our one failure hardly warranted the discontinuance of a method so much simpler and less expensive than planting. I hope, therefore, to revert, in some measure, to that system in the approaching season*.

* Since writing the above, the planting weather has set in, but I regret to say that the Overseer has failed to make arrangements for cattle and ploughs. I have resolved, however, to give the plan a trial, and hope to succeed this month. Having recently inspected Walliar, I find that the following seeds *sown* in pits thrive exceedingly well; seed was put down in 12,000 pits during the first week of June, and is now flourishing. I observe no failure. From this I am led to suppose that ploughing and sowing should answer well.

14. It must be borne in mind that, although Walliar is within the influence of the south-west monsoon, it is subject to an intensely hot and dry season from February to the middle of May. We are on the very outskirts of the monsoon, and I feel sure that in an ordinary season the rain-fall would be found much less in the reserve than even a mile to the west. I regret that it never occurred to me to test this by registering the fall in various localities. The really moist and growing weather ceases at Walliar much earlier than further west; hence, plants have to encounter a long and severe drought.

Karuvalum (*Acacia Arabica*).
Parambai (*Prosopis spicigera*).
Velvalum (*Acacia ferruginea*).

15. It has been repeatedly noticed at Walliar that, however well our plants may look when they are put out, however favourable the weather at the time, and up to the end of the monsoon, they succumb to the effects of the dry weather.

16. We have unfortunately no water in the reserve, except in the two wells before alluded to, which are required for nursery work. I find in Captain Gosling's report for 1868-69 that mention is made of an anicut constructed by him for irrigation purposes across a stream which then flowed through the reserve. This stream failed very soon afterwards, and has never again run, though, I am told, it was never dry previously. The exhaustion of a stream occurring simultaneously with the reservation of a jungle tract is peculiar. The Mulcers tell us, we should have made "poojah," and I have accordingly directed "poojah" to be made during the next official year.

17. Saplings and seedlings alike are destroyed in large numbers by deer, pig, and hares which are plentiful in the reserve.

18. The aloe, with which we have topped the trench and embankment fencing, does not thrive. In places it is most vigorous but wide and numerous gaps are to be found, and so it is practically of little use. The trench and enbankment are not, however, sufficient of themselves to keep out cattle. Wire is expensive, but a thoroughly effective fence of some sort is indispensable. The Railway Company are constructing dry stone walls, and this, if not more expensive than wire, might be tried, as both the material and the required labour are abundant. It is a neat, durable, and easily repaired fence, and, what is of great importance, would help to keep out fires.

19. *Nocheepully.*—A sum of Rupees 697-4-9 has been spent here, which is more by Rupees 35 than the expenditure of 1871-72.

20. Fifty-nine chains of trenching have been repaired, and 192 chains of fire-path traced, a well has been sunk, 3,000 casualties re-placed, and a large area cleared and weeded.

21. In *Pulliampully* 3,800 casualties have been re-placed, 3,000, pits cleared and weeded, 54 chains of fire-tracing made, and 61 chains of trench-work executed. Expenditure Rupees 547-15-0, which is less by Rupees 211-9-0 than the previous year's outlay.

SECTION III.

License and Voucher Forests.—This system is not in force in the Chenat Nair forests, and only to a small extent in Walliar, the receipts from which are credited to the Bolumputty Range. Statement E is accordingly omitted.

SECTION IV.

Yield of Forests.—The timber shown in Statement B was not felled this year; it was cut from the Sholacurray forests by Mr. Lloyd in 1872, but not brought to account, nor the felling, etc., charged for. The value imposed corresponds to the cost entered under heading I. in A.

2. Statement C gives result of sales. These are not satisfactory, yielding a return less than estimated value by Rupees 104-10-5. The wood had been stored for some years, and it was absolutely necessary to get a sale even at some sacrifice. About 2,000 Rupees worth of timber at Coimbatore has been sold by auction since the close of the year under notice. The total value originally imposed was realized over the whole in consequence of some Anamalay timber selling high, but much of the Walliar and Sholacurray timber went below estimated value. Details, however, do not belong to this report.

SECTION V.

Financial Results.—There is a net balance of Rupees 5,141 against the Range, thus :—

Gross Expenditure.	Receipts.	Difference.	Value of Stock.	Increase or Decrease during year.	Net Results.
RS.	RS.	RS.	RS.	RS.	RS.
6,520	840	—5,680	{ 5,033 / 5,572 }	+539	—5,141

2. In 1871-72 the financial results of Chenat Nair (including Sholacurray and Walliar) were embodied with those of Bolumputty, and in the report for that year the following figures are shown :—

Gross Expenditure.	Receipts.	Value of Stock.	Increase during the year.	Net Results.
RS.	RS.	RS.	RS	RS.
9,751	7,638	5,226	+100	—2,013

3. The increased deficit for the last year may be attributed to the withdrawal of the Bolumputty revenue from these accounts rather than to unusual expenditure or to other than a temporary cessation of sales. A combination of the financial statements of the Bolumputty and Palghut ranges for the year under review will render the explanation clearer.

Ranges.	Gross Expenditure.	Total Receipts.	Difference.	Value of Stock.	Increase or Decrease of Stock.	Net Results.
	RS.	RS.	RS.	RS.	RS.	RS.
Palghaut	6,520	840	—5,680	5,572	+539	—5,141
Bolumputty	1,417	3,559	+2,142	379	+286	+2,428
Total...	7,937	4,399	—3,538	5,951	+825	—2,713

4. It will be found, on comparing the totals of the foregoing table with the entries in the one copied from the report of 1871-72, that the difference between the net results of the two years is Rupees 700, by which sum the deficit of 1872-73 exceeds that of 1871-72. But it will also be seen that the expenditure is less in 1872-73 by Rupees 1,814, which, in great measure, accounts for the decrease in receipts, amounting to Rupees 3,239, and for the net increase of deficit.

5. The following statement showing the distribution of revenue and expenditure was given in Section V. of the report for 1871-72, paragraph 26:—

	Bolumputty.	Sholacurray.	Chenat Nair.	Fuel Reserves.
	RS. A. P.	RS. A. P.	RS. A. P.	RS. A. P.
Receipts	3,379 13 0	4,258 2 0	.....	.....
Charges	1,206 15 3	2,712 3 6	.....	5,434 2 0

N.B.—These figures include a share of Permanent Establishment. A sum of Rupees 397 included in gross expenditure in statement under paragraph 23 of Report for 1871-72 was not shown in this statement for want of details.

6. A comparison with a similar form for 1872-73 will further elucidate matters.

	Bolumputty.	Sholacurray.	Chenat Nair.	Fuel Reserves.
	RS.	RS.	RS.	RS.
Receipts	3,559	840	*Nil.*	*Nil.*
Charges	1,417	2,282	7	4,231

7. Out of the sum of Rupees 6,520, gross expenditure for the year, excluding Bolumputty, the cost of permanent establishment amounts to Rupees 1,708-15-0, which I have divided between the fuel reserves and Sholacurray forests; to the former Rupees 1,200 is charged as in 1871-72, to the latter Rupees 508-15-0; of the balance, Rupees 3,031 was laid out on fuel reserve, etc., which leaves an expenditure of Rupees 1,772-1-0 debited to Sholacurray. Chenat Nair only cost Rupees 7 for clearing brushwood.

8. The expenditure on Sholacurray is less by Rupees 430-3-6 than in 1871-72, and a saving of Rupees 1,203-2-0 is effected under fuel reserve work.

9. Dividing the total expenditure between the districts of Coimbatore and Malabar, in both of which the range, as hitherto constituted, lies (excluding Bolumputty which has been separately reported on), a sum of Rupees 3,565-15-8 has been actually spent within the limits of the former, and of Rupees 1,245-3-9 within those of the latter district, irrespective of permanent establishment charges.

SECTION VI.

General Remarks, Conduct of Subordinates, etc.—The Acting Head Overseer has laboured under disadvantages. The state of the range when he assumed charge was by no means satisfactory; his experience of forest work very limited and his knowledge of the district *Nil*, his general behaviour since joining merits approval.

2. A dispute has arisen in regard to the right of cutting timber in a valuable tract of land called Vellalutan Pothai. The forest has been in our possession for years, and we were ignorant of any opposing claims until the agents of Karampolimalai Devastanum commenced felling in the month of January last. The case was brought before the Tahsildar of Palghaut but without any satisfactory result; a sketch map in the Collector's cutcherry on which we relied to prove our rights tended rather to complicate matters. Further felling, however, has been put a stop to, and the case having been brought to the notice of the Head Assistant Collector, the interests of Government will doubtless be duly protected.

3. Another case of illegal felling was detected in Kavarabonee in March, brought before the Tahsildar of Palghaut, and the offenders have been punished with a fine of Rupees 400.

4. The Overseer reports a number of ripe trees at Moondoor sholah, Kallathody, Ambalumallai, Vellatai sholay, and elsewhere, consisting of Venteak, Vengay, Pillaimurdoo, Erul, and a few Teak and Rosewood. He reports the existence of Erumbagum. He estimates that 300 logs could be obtained from windfalls and the like. These latter should at all events be utilized, and,

considering the outlay that has been experienced of late, it might be well to cut some good ripe timber, and offer it for sale, so as to restore the financial equilibrium of the range.

I have the honour to be,
Sir,
Your most obedient servant,

(Signed) C. G. DOUGLAS,
Deputy-Conservator of Forests, Palghaut, etc., Ranges

OFFICE OF DEPUTY-CONSERVATOR OF FORESTS,
MANANTODDY, *30th June* 1873.

No. 104.

From

A. W. PEET, ESQ.,
Deputy-Conservator of Forests,

To

COLONEL H. R. MORGAN,
Deputy-Conservator of Forests, Ootacamund.

SIR,—I have the honour to submit my Annual Administration Report on the Wynaad forests for the official year ending on March 31st, 1873.

SECTION I.

Inspection Tours of the Officer in Charge.—In April 1873 I was away from head-quarters from the 10th to the 29th, being engaged for the greater part of that time in conducting at Mysore the auction sales of Mudumallay and Wynaad timber and in settling certain claims, not before definitely determined, arising out of the fraudulent transactions of the ex-Overseer Turnbull. These claims were laid on the ground that advances made by merchants for the purchase of timber had not been satisfied. These claims are now all settled. There is, however, an outstanding claim of another nature that will be settled during the current year. In this case Junglewood was delivered to a purchaser instead of Teak.

2. In May I was employed from the 14th to the 25th day of the month in measuring and stamping timber at the Gundry depôt and in searching out timber in the jungles that had been felled at different periods during the last five or six years, but never carted from the forest. As this timber has always formed part of the balance in hand in the annual accounts, I laid great stress on its recovery. Between fifty or sixty logs have been accounted for, but some of these are so large that it is impossible to cart them from difficult positions in the jungles. Elephants are almost indispensable for the removal of such logs to favourable points in the regular cart-roads.

3. During June carting operations ceased on account of the monsoon. From the 24th to the end of the month I was engaged in an endeavour to determine accurately the boundaries of our forests towards Padry on the north-west of the Poolpully forests.

4. I have little doubt from the irregularity of the line of boundary stones that more than one of these has been moved. It is, however, impossible to determine this point accurately in the absence of a general survey. On this subject I append some remarks in Section VI.

5. During July there was little work on account of the monsoon. I allowed some felling by way of experiment.

6. In August I was engaged for nearly the whole of the month with the auction sales at Mysore and in investigating certain frauds connected with the Mysore depôt of Mudumallay timber. The details of these frauds are not entered upon here, since they do not concern the Wynaad forests. The average price of timber at the April and August sales was about Rupee 1 a cubic foot. The large quantity in store at the beginning of the year lowered the market value.

7. In September I was engaged in examining, with the Deputy-Collector, the boundaries of the forests claimed by the Pamry Nair. This claim is still under examination. The forests lie between the south-west portion of the Chedleth and the south-east of the Poolpully Temple forests. They form a valuable tract, being richer in Teak than any part of the Chedleth forests.

8. In October I turned my attention almost exclusively to the Coodracote forest on the Coorg frontier. I found some encroachments on the reserved land and ejected the intruders. There is still a large amount of valuable timber in this forest, but parts have been overworked. The effects of the Ragi cultivation by the Coorumbers are even more apparent here than in the Chedleth forests. Acre upon acre has been felled, and, as the same piece of land is never cultivated for more than two years in succession, and rarely for more than one year, there is a systematic clearing of a large extent of forest that would otherwise, in most cases, have contained valuable timber. On this subject I append some remarks under the heading "Tukkul" in Section VI.

9. In November, having started towards the end of October, I went out for the purpose of pointing out a definite area for felling, since timber had previously been felled over so wide an extent that carting operations were utterly unsystematic. During this month also I marked out a road leading from the Chedleth forests to Sultan's Battery. This road has been completed at a very trifling cost; since, by following the ridge of hills, I was able to trace a road over grass-land, without the necessity of levelling any ground for the greater part of the way. There was, however, considerable difficulty at one or two points beyond Chedleth.

10. I paid a visit to a large tract of forest to the east of Sultan's Battery. This has not been worked for some years, and, although not producing first-class timber, is still valuable. I propose felling there during the current year. This portion of the Wynaad forest reaches as far as Mudumallay forest on the east and to Nellicottah on the south. Towards the end of this month I visited, in company with the Deputy-Collector, the Cardamom ground lately escheated to Government. This tract consists of several hills lying towards Peria on the north, the ghauts on the west, as far as Vallant on the east, and Coonjote on the south. It has been arranged to place this tract under the Forest Department. In this case, I must apply for an increased establishment, since it is impossible to do justice to so large a tract with my present establishment.

11. In December I spent some time in the Coodracote forest, and went afterwards to Tellicherry to arrange about a depôt for the timber which I am sending down thither. I have now about sixty logs there, but have not held a sale. I propose to sell in July. This is an experiment, for hitherto this market for Wynaad timber has not been attempted.

12. In January I again went through the Chedleth forests, starting from Gundry through to Chedleth and Sultan's Battery, and thence through the forests to the east. I found the usual difficulty with carting arrangements, namely, that the cartmen, in order to obtain convenient loads, made repeated attempts to bribe the Coorumbers to cut long logs in half, or even to saw two or three feet off fashioned timber.

13. Early in February I set out, acting under the orders of the Collector, to make arrangements for allowing the owners of the Tirinhully Pagoda to fell timber for the repair of the temple. I stipulated, however, that no logs were to be removed from the place of felling until stamped by me. I was then called up to Mysore to defend a suit connected with the frauds committed at the Mudumallay in July. The details are not entered upon here, since the case concerned the Mudumallay forest only; but I have to explain that I was named as 2nd defendant, since I had acted for Colonel Morgan at the sale of Mudumallay timber in August. As Colonel Morgan could not appear at the time, the defence devolved on me. The action was brought by a merchant to recover value for timber bought by him from the Mudumallay Overseer, part of which timber had been removed by him to Bangalore, where the sale was interdicted by the Forest Department; the remaining portion of the timber had been left at Mysore and re-sold by me in August. The grounds for this course were an allegation of fraud against the Overseer and complicity on the part of the merchant, selected timber having been sold at the market-rate for unselected.

A criminal action was not entered upon at the time on account of the absence of the Overseer, of whose whereabouts nothing was known. The plaintiff in the present case compromised by accepting the terms of the defence almost without modification, paying full market value for certain logs previously removed, giving up all claim to the timber re-sold in August, and paying costs.

14. In March I left Mysore for Calicut, in order to meet the Inspector of Forests whom I accompanied on his tour through the ghaut forests to Wynaad.

SECTION II.

Reserves.

15. *A, Reserved Forests, Operations, and contemplated Operations.*—The amount felled is not so large as I had intended, for the reason that I found after trial that the carting arrangements were inadequate, and evidences of waste are everywhere apparent in the forests, since the precaution of limiting the amount felled to the capabilities of conveyance has not been taken into consideration. There are now in the forests logs felled at different periods during the last six years, and the losses by fire and other causes of destruction or deterioration are excessive. I have been obliged lately to call in a second cart contractor, exclusively for the Coodracote forest, since one contractor could not work properly both in the Coodracote and Chedleth divisions.

16. The *boundaries* I have attempted to determine, and have commenced marking large trees along them in order to supplement the use of stones. Encroachments are, however, continually made in every direction, and nothing but an accurate and detailed survey, with strict conservancy laws, will effectually prevent them. The greatest encroachments are made from stations in the interior of the reserved tracts. Chetties and others have very ill-defined holdings, and hitherto have increased them almost at will, for such boundary stones as exist generally encircle large tracts, and do not give any guide as to the extent of small included properties.

17. With reference to *Communications*, a road to Sultan's Battery from the Chedleth forests has been made. The bridges on the ordinary cart-tracks have all been strengthened. Three of the bridges thus strengthened have been partially destroyed by wild elephants, one bridge having been injured no less than three times. Several elephant pits have been made near the ordinary watering places of these animals, and one female has been caught.

18. *B, Fuel Reserves.*—At present there are none.

19. *C, Plantations.*—Experimentary operations have been made on a small scale. Before doing anything on a large scale, I wish to have an opportunity of visiting the Nellambur plantations and those at Mudumallay, which I hope to do during the present monsoon when work is slack here. During the past year I have made myself generally acquainted with the nature and requirements of the forest; but there is still a vast work of mapping out, and systematic division of the forest, that should, I think, precede any very extended operations.

20. *Contemplated Operations.*—I propose turning my attention as much as possible to the question of boundaries. During the past year I have endeavoured to discover the limits of the reserved forests in parts of Coodracote and on the line of the Chedleth forests that borders on the Poolpully Temple tract. Towards the end of the monsoon I shall endeavour to discover the boundaries of the forests to the east of Sultan's Battery, and also to the north-west along the line of the old road made on the summit of the range of hills leading from Sultan's Battery to Pannamaram. In the angle formed by this range and the range leading due north of Sultan's Battery, I have found some of the reserve boundary stones, although the coloured outline of the reserve in the map by Lieutenant Fullerton does not descend into this angle, but is drawn across so as to form a line opposite to the angle. From this point along the old line of road to Pannamaram I have reason to believe that the forest is Government property; however, there are plantations of native coffee along nearly the whole of the route. Some of these plantations are at least six years old.

21. With regard to felling I propose to fell as much as I consider can be conveniently removed to depôt, taking care first to remove as many as possible of the old logs now lying in the forests. I propose to form a depôt at Sultan's Battery from the forests to the east of that place.

With regard to the Cardamom tract lately escheated to Government, I shall endeavour, if granted an extra establishment, to cultivate the Cardamoms according to the method adopted in Mysore.

SECTION III.

22. *License and Voucher Forest Operations.*—None. All operations are departmental.

SECTION IV.

23. *Expenditure on carting, felling, and floating. Yield of forests.*

A—Timber felled—

At Coorchart, 3,836¾ cubic feet of Teak were felled during the year.

At Coodracote, 2,297 cubic feet of Teak and 302½ of Blackwood were felled. The rates for felling were, as usual, one Anna a cubic foot.

B—Timber carted—

To Mysore depôt, 6,895½ cubic feet of Teak were carted.

To Manantoddy, 475¼ cubic feet.

To Tellicherry, 785¼ cubic feet.

The timber from the Coodracote forest has been reserved entirely for the trade to Manantoddy and Tellicherry.

The Mysore market is supplied from the Chedleth forest.

The rates for carting have been reduced this year, since they were excessively high :—

—	Old Rates.			New Rates.		
	Rs.	A.	P.	Rs.	A.	P.
From Chedleth forest to Gundry, a cubic foot ...	0	3	0	0	2	6
Do. do.	0	3	6			
Do. Gundry to Hirnandy (floating) ,, ...	0	1	0	0	1	0
Do. Hirnandy to Mysore	0	2	0	0	1	6
Do. do.	0	2	6			
Do. Coodracote to Manantoddy	0	6	0	0	2	6
Do. Manantoddy to Tellicherry	0	8	0	0	7	6
Total...	1	10	0	0	15	0

C—Timber floated—

From Gundry to Hirnandy, 6,895½ cubic feet of Teak were floated. The rate of payment is one Anna a cubic foot.

D—Timber sold—

	Rs.	A.	P.
Sale of Bamboos...	26	8	0
Do. of Teak	21,223	10	9
Do. of timber to Department of Public Works ...	348	13	0
Total...	21,598	15	9

SECTION V.

Financial Results.

Expenditure—

	Rs.	A.	P.
Conservancy and working	4,188	15	6
Establishment	6,882	6	5
Contingencies	72	5	0
Total...	11,143	10	11

Receipts—	Rs.	A.	P.
Sale of bamboos	26	8	0
,, of wood	21,223	10	9
,, of wood to Department Public Works...	337	9	0
,, of saplings ,, ...	11	4	0
,, of elephant	1,750	0	0
Miscellaneous	94	0	0
Money in hand refunded	102	15	11
Total...	23,545	15	8

24. *Value of Stock and Financial Results.*—In order to compare the financial results of the two last years, I give the value of stock in hand according to the old system, first, namely, by valuing it at or about its supposed selling price.

25. I append the true financial results for last year calculated in accordance with Government Proceedings, dated 22nd June 1872, No. 962.

Value of Stock in Hand calculated according to supposed selling Value.

Items.	Number of Cubic Foot.	Rate per Cubic Foot.	Amount.	Remarks.
			Rs. A. P.	
Balance of stock on 31st March 1872.	36,003	... ...	31,705 6 10	
Timber felled during year (Teak) ...	6,133¾	0 8 0	3,066 14 0	
Timber felled (Blackwood)	302½	0 6 0	113 7 0	
Increase in value of timber, by carting to depôts and alterations in yearly estimates of value	...	... ...	... ...	
Carting from Gundry to Mysore... ...	113½	0 5 0	35 7 6	
Increase in estimate of value at Gundry	286½	0 2 0	35 13 0	
Carting from Coorchart to Gundry ...	2,498	0 6 0	936 12 0	
,, ,, Coodracote to Manantoddy	1,260½	0 8 0	630 4 0	Teak.
,, ,, Coodracote to Manantoddy (Blackwood)...	124½	0 8 0	62 4 0	
,, ,, Manantoddy to Tellicherry	785½	0 8 0	392 10 0	
,, ,, Coorchart to Mysore.....	6,782	0 9 0	3,814 14 0	
Excess realized by the sale of timber over last year's estimated value ...	21,422½	... ...	138 7 9	
Add errors in payment at Mysore ...	...	... ...	4 15 0	
Total...	...	... ...	40,937 3 1	
Deduct timber sold	...	21,223 10 9	... ...	
Timber supplied to Department Public Works	...	337 9 0	21,561 3 9	
Balance on 31st March 1873	...	... ...	19,375 15 4	

Synopsis of Financial Results for the years 1871-72 *and* 1872-73, *calculated according to the old system.*

Year.	Expenditure.	Receipts.	Result.	Difference in Value of Stock.	Net Result.
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1871-72 ...	10,500 8 2	1,836 10 3	— 8,663 13 11	—13,352 11 0	—22,016 8 11
1872-73 ...	11,143 10 11	23,545 15 8	+12,402 4 9	—12,329 7 6	+ 72 13 3

SECTION V. B.

Financial Results deduced from the Estimation of the Value of Stock according to the expenses incurred in felling, conveyance, and superintendence.

	Cubic Feet.
I.—Quantity of stock at commencement of year	36,003
Add timber felled	6,436½
Total Stock ...	42,439½

II.—Expenditure incurred—

	Rs.	A.	P.
Prime cost of stock in hand at commencement of year ...	22,501	14	0
Cost of carting and felling during year	3,180	5	0
Cost of superintendence (Establishment, etc.)	11,143	10	11
Total, Expenses ...	36,825	13	11

III.—Therefore, the approximate expenses of the department per cubic foot is 13 Annas 10 Pies.

IV.—The quantity sold was 21,787½ cubic feet. The amount realized by this sale was Rupees 21,461-3-9. Approximately, therefore, the selling price was 15 Annas 9 Pies.

V.—Therefore the approximate gain per cubic foot on the quantity sold was 1 Anna 11 Pies.

VI.—Financial Result—

The amount gained is Rupees 2,609-15-10.

SECTION VI.

General Remarks.

26. *Establishment* consists of one Writer at Manantoddy, one Office Gumastah at Ootacamund, one Sub-Overseer for general work, one Assistant Overseer at the Mysore depôt, one Duffadar, and ten Peons.

27. *Health of the Establishment.*—There have been numerous cases of fever; I myself have had about twelve attacks, and the writer has suffered repeatedly. All the Peons have suffered also at one time or other. The worst time in the year is during the early showers. There have been no epidemics. The Sub-Overseer who was acting at the commencement of the year was continually ill, and has been re-placed. One Peon has resigned from general ill-health.

28. *Forest Produce.*—I have had little or no success in the collection of forest-produce. It is difficult to detail satisfactorily the reasons for this want of success, since many complications enter in the proof. For instance, the character of the forest tribes, the Coorumbers, and their relations to Gowdas, Chetties, Moplas, and general merchants are difficult to understand clearly. There are valuable products in our forests, such as gall-nuts, soap-nuts, syakkay, saffron, and large quantities are collected every year partly by the forest tribes properly so-called, largely by Mysore merchants and Chetties and others holding land within or on the outskirts of our forests. Of the produce gathered by the forest tribes almost the whole amount is handed over to merchants or Chetties, who have acquired a hold over the gatherers. This hold is generally acquired by giving advances in money or more generally in ragi to the Coorumbers. The accounts are often (of this I have proof) largely over-stated, and at any rate the value of produce is hardly, if at all, placed as credit against the advance. Coorumbers are perpetually threatened in consequence of their state of debt, and in many cases become little more than slaves to Chetties. I have given advances for produce during the year, but have not received even the value of the money disbursed. On this subject the Native Magistrate remarked to me that the Coorumbers would always hand over the produce to Chetties or merchants in preference to the Government, partly from distrust of any official transaction, chiefly because they were more afraid of their immediate neighbours than of the Government, so that advances are often not worked out.

29. *Tukkul.*—Under this term are comprised the whole of the operations of ragi cultivation, as conducted by the Coorumbers in forest land. Their method of cultivation consists in clearing a

fresh patch of jungle annually and sowing raggi therein. The Bet-Coorumbers fell the whole of the timber on the patch to be cultivated. The Jain-Coorumbers, on the other hand, leave all the large trees. The latter, therefore, do infinitely less damage to a forest. I found it customary to allow tukkul, so I marked out this year land where the growth was small. I think, however, that the whole system is utterly opposed to the idea of forest conservancy if allowed in the unrestricted way that has hitherto prevailed. In France a somewhat similar system prevails, chiefly in the Ardennes. This is known under the name "Sartage." The operation is conducted there, however, almost entirely on coppice land, although certain standard trees are often reserved. The coppice is felled and removed. The small branches, brushwood, and useless trees are then spread over the surface of the soil between the stocks of the coppice and set on fire. Cereals are then grown for one or two years, and the coppice is afterwards allowed to grow. This custom dates at least from the time of Cæsar, and is pronounced not only not deleterious but actually advantageous. However, the conditions are peculiar; the soil, for the most part, consists of slaty schist, which is somewhat decomposed by the effect of the fire; the ashes, moreover, are said to contain nutritious salt, and to have the quality of attracting and retaining the moisture of the atmosphere. In the tropics, however, I think it may be considered a rule that the more the soil is covered, the less nutritious matter does it lose. Nevertheless, putting aside all general considerations, in the present state of Wynaad, destitute of large towns and without railways, the growth of firewood is not the object of a forest conservancy; else this system of tukkul (provided that the trees felled were made use of, and not burnt as now on the ground) would not be altogether disadvantageous, since a crop of timber succeeds that would in a few years be of a good size for firewood billets. At present, the custom of the Bet-Coorumbers has the effect of destroying annually the growth of several years, and reducing high forest to the condition of bastard coppice, or at least to a growth of small and unsaleable timber. I therefore think that either the system of tukkul should be abolished altogether or, if the Coorumbers be judged to have prescriptive right to tukkul, that all trees above ascertained standard should be reserved under pain of penalty, or that something like the compromise known in France under the name of "Cantonnement" should be adopted. In this case, the Government compromises with parties having a prescriptive right to certain usages in the forest by giving over a part of the forest in entire possession to those having the right, and excluding them altogether from the rest of the forest. With a nomad tribe like the Coorumbers in the heart of a forest it is impossible for a small establishment to prevent damage in one or other direction.

30. *Survey.*—At present there are no accurate drawings to give in detail the boundaries of the Wynaad forests. Certain boundary stones were put down by Lieutenant Fullerton, formerly Deputy-Conservator for these forests, and a sketch map was made. It is impossible now even to find the stones in most cases, and the sketch map is not sufficient evidence to determine whether encroachments have been made. I have reason to believe that many boundary stones have been removed by adjoining proprietors and in some directions the boundary, even on the map, is stated to be unknown. I therefore think that one of the chief steps towards a strict conservancy has not yet been taken, and would venture to urge the sanction of a survey establishment in order once and for all to provide accurate official evidence as to the boundaries of the Wynaad forests.

I have the honor to be,

Sir,

Your most obedient servant,

(Signed) A. W. PEET,

Deputy-Conservator of Forests.

From J. FERGUSON, Esq., Deputy-Conservator of Forests, to A. MACGREGOR, Esq., Conservator of Forests, dated Nilambore, 23rd June 1873.

Adverting to the Board's Proceedings, dated 8th May 1873, No. 746, I have the honor to forward the annual administration report of the Nilambore Range for the official year 1872-73.

2. Timber logs felled during the year 1872-73 :—

Description of Logs.	Number of Logs.	Contents, Cubic Feet.	Value. RS.	A.	P.
Teak	312	6,027	4,520	4	0
Blackwood	12	278	208	8	0
Karimaruda	32	1,229	384	1	0
Benteak	86	2,391	597	12	0
Poomaruda	83	854	106	11	11
Poo. Pathery	5	66¾	8	5	6
Total ..	530	10,845¾	5,825	10	5

3 Cash realised by private sales amounts to .. .. .. RS. 16,841 A. 15 P. 10
And value of timber supplied to the Department of Public Works 303 10 3

Total .. 17,145 10 1

And balance of stock remaining on hand—

	RS.	A.	P.
In Calicut Depôt	3,513	3	9
In Forest Depôt	11,514	1	0
Aggregating Total ..	15,027	4	9
On hand on 31st March 1873; and disbursements on account of sanctioned establishment	9,131	4	0
And on account of working charges	17,041	3	6
Total ..	26,172	7	6
Paid for Karimpoya and Amarapolliam forests ..	80,000	0	0
Total	1,06,172	7	6

4. PLANTATIONS.—Teak seedlings planted out during the year in Chathanboria (or the site lately purchased from N. Soobramania Nambudripad 2,35,000 ; the soil is excellent, and the plants healthy.

5. Forest demarcation and survey operations have been carried out and completed at Amarapolliam and Karimpoya blocks, purchased from Amarapolliam Rajah.

6. Floating operations for the year—1,057 logs of timber of sorts, 11,343 saplings, and 21,811 bamboos have been forwarded to Calicut Depôt during the year.

7. Operations—

2,35,000 Teak seedlings planted.
1,540 acres weeded.
235 acres hoed.
800 acres pruned.
130 acres felled.
235 acres piled and burnt.
530 Logs of Teak and jungle-wood felled.
1,057 Logs of Teak and jungle-wood floated to Calicut Depôt.
29,000 Saplings felled.
12,942 do. collected.
11,343 do. floated to Calicut Depôt.
21,811 Bamboos felled and floated to Calicut Depôt.
526 Logs fire-traced.
13½ Miles of fire-tracing, ten feet wide,

Financial Results.

Expenditure.

A.—Conservancy and Working.

	Rs.	A.	P.	Rs.	A.	P.
I. Timber expenses, felling, *etc.* ..	6,221	11	10			
II. Purchase of tools and plants ..	276	7	4			
IV. Rent of leased forests	80	0	0			
VI. Plantations	10,062	2	5			
VIII. Survey Forest demarcation ..	106	6	0			
IX. Experiments	48	11	0			
X. Communications	245	12	11			
Total Working Charges				17,041	3	6

B.—Establishment.

I. Pay of Executive Officer	3,600	0	0			
II. Forest Conservancy Establishment	3,356	14	8			
III. Timber working and Depôt ..	936	0	0			
IV. Travelling allowance of Executive Officer	1,118	11	4			
V. Office Contingencies	119	10	0			
Establishment Charges				9,131	4	0
Total disbursements during the year 1872-73..	...	..	..	26,172	7	6

Receipts by Sale of Timber, etc.

990 Logs of timber containing 19,134¾ cubic feet ..	7,805	9	2			
11,229 Saplings	7,378	14	0			
20,276 Bamboos	1,703	6	11			
125¾ Bandy-loads of fire-wood ..	251	8	0			
On account of boat-hire ..	6	4	0			
				17,145	10	1
Balance against Forests				9,026	13	5
Value of stock on hand on 31st March 1872	17,204	1	2			
Do. do. felled during the year 1872-73	13,459	12	9			
Total..	30,663	13	11			
Deduct timber sold during 1872-73.	17,145	10	1			
Balance..	13,524	7	10			
Add difference between nominal value and the actual amount realised	1,502	12	11			
Balance on hand on 31st March 1873				15,027	4	9

Particulars of Balance.

Stock in market Depôt.

158 Logs of timber, containing 3,540 cubic feet	482	11	9			
1,489 Saplings	3,030	8	0			
				3,513	3	9

Stock in Forest Depôt.

526 Logs of timber, containing 13,767 cubic feet	8,592	1	0			
5,844 Saplings	2,922	0	0			
				11,514	1	0
Total..				15,027	4	9

A.

Year.	Felling Charges.	Cost of Transport to, and storing charges in, market Depôt.	Total.
	RS. A. P.	RS. A. P.	RS. A. P.
1872-73.	1,272 5 0	4,949 6 10	6,221 11 10

B.

Division of Range.	Description of Timber and other Forest-produce.		Number of Cubic Feet.	Rate per Cubic Foot.	Total Valuation.	Remarks.
				RS. A. P.	RS. A. P.	
Nilambore.	588	Logs, Teak	13,566	0 12 0	10,174 8 0	Stock on hand at the commencement of the year 1872-73; stock felled since and sold during the year inclusive of stock balance on hand at the end of the year 1872-73.
	37	„ Blackwood ..	927	0 12 0	695 4 0	
	186	„ Karimaruda ..	5,393	0 5 0	1,685 5 0	
	281	„ Erool	7,160	0 4 0	1,790 0 0	
	484	„ Benteak	13,396	0 4 0	3,349 0 0	
	90	„ Poomarida ..	1,079	0 2 0	134 13 11	
	5	„ Poopathery ..	66¾	0 2 0	8 5 6	
	23,062	Saplings	....	0 8 0	11,531 0 0	
	25,912	Bamboos	%	5 0 0	1,295 9 6	
		Total..	41,587¾	.....	30,663 13 11	

C.

Description of Timber or other Produce, Number of Cubic Feet or Maunds sold, and Rate of Valuation per Cubic Foot or Maund.				Total Valuation.	Total Amount realised.	Difference.	Explanation of Difference.
No.	Description.	C. Ft.	Rate.				
			RS. A. P.	RS. A. P.	RS. A. P.		
196	Logs, Teak	2,684	0 12 4	2,013 0 0	2,070 14 9		
22	„ Blackwood .	302	0 13 8	226 8 0	257 2 7		
141	„ Karimaruda	2,772	0 7 1	866 4 0	1,225 5 10		
368	„ Benteak ..	8,321	0 5 2	2,080 4 0	2,698 9 11		
173	„ Erool	4,054	0 5 4	1,013 8 0	1,421 5 10		
85	„ Poomarida .	925	0 2 2	115 10 0	123 12 9		
5	„ Poopathery.	66¾	0 2 0	8 5 6	8 5 6		
11,229	Saplings	each.	0 10 6	5,614 8 0	7,378 14 0		
20,276	Bamboos	%	8 6 10	1,013 12 9	1,703 6 11		
125¼	Bandy-loads of fire-wood.	....	2 0 0	251 8 0	251 8 0		
	Total..	....	.....	13,203 4 3	17,139 6 1		

D.

No.	Description of Timber or Forest-produce.	Number of Cubic Feet.	Rate per Cubic Foot.			Total Valuation.			Remarks.
			RS.	A.	P.	RS.	A.	P.	
276	Logs, Teak	7,539	0	12	0	5,654	4	0	Balance at the commencement of the official year 1872-73.
25	„ Blackwood	649	0	12	0	486	12	0	
154	„ Karimaruda.....	4,164	0	5	0	1,301	4	0	
281	„ Erool	7,160	0	4	0	1,790	0	0	
398	„ Benteak	11,005	0	4	0	2,751	4	0	
7	„ Poomarida	225	0	2	0	28	2	0	
10,004	Saplings	each..	0	8	0	5,002	0	0	
3,809	Bamboos	%	5	0	0	190	7	2	
	Total..	....	.....			17,204	1	2	
393	Logs, Teak	9,737	0	12	0	7,302	12	0	Balance at the closing of the official year 1872-73.
15	„ Blackwood	410	0	12	0	307	8	0	
107	„ Erool	2,604	0	1	8	268	1	2	
116	„ Benteak	2,952	0	3	10	706	10	2	
46	„ Karimaruda.....	1,444	0	5	0	451	12	2	
7	„ Poomarida	160	0	3	9	38	1	3	
7,333	Saplings	each..	0	12	11	5,952	8	0	
	Total..	....	.....			15,027	4	9	
	Add total valuation and forest-produce felled during the year as per column 6, Statement B.	....	30,663	13	11				
	Deduct total valuation of timber, *etc.*, sold during the year as per Statement C	....	17,139	6	1				
	Total..	....	13,524	7	10				
	Add difference between the nominal valuation and the actual amount realised	....	1,502	12	11				
	Compare remainder with total of column 5	....	.....			15,027	4	9	

9. *General Remarks.*—During the year under review, floating operations were conducted through the Tahsildar of Ernad Taluq, 1,057 logs of timber and 11,343 saplings with 21,811 bamboos were transported to the market depôt at Calicut, leaving in the forest unfloated 123 logs of Teak, 3 Blackwood, and about 9,000 saplings; these, with the stock felled during the year, now require to be sent down during the monsoon or wet season.

Planting was carried out successfully, about 235 acres having been planted on the site lately bought from N. S. Nambudripad. The soil is excellent, and the plants are healthy and thriving. Pruning has also been judiciously carried out; about 1,120 acres have been pruned. This operation is much increased from the strong lateral powers of shooting the Teak tree possesses, and has to be continued up to 20 years old and occasionally up to 30 years or more.

Weeding has been carried out properly in all the younger plantations, but from want of funds the older ones were not weeded, and from age and previous repeated weedings the undergrowth in them is not so strong as in the young plantations. Two new blocks of forest land at Amarapolliam and Karimpoya have been purchased during the year from Amarapolliam Rajah, and the former block contains nearly one hundred acres of young Teak systematically planted, and is growing vigorously. These two, with the block obtained the year before from the Nambudripad, contain an area of nearly six thousand acres; both soil and situation are excellent, being well intersected with rivers capable of floating timber.

The health of the establishment has been moderately good during the year.

The officer in charge obtained one month's privilege leave from 7th April and also one month on other duty on the Nilgiris (a report on which is separately submitted) and resumed duty from the 7th instant.

I have the honor to be,

Sir,

Your most obedient servant,

(Signed) J. FERGUSON,

Deputy-Conservator.

ORDER THEREON, 24th April 1874, No. 503.

Financial Results.—The forest receipts during the year 1872-73 amounted to Rupees 4,18,767, being within a few rupees of the total* of the previous year. The expenditure, on the other hand, was far higher, being Rupees 4,78,147 against Rupees 3,45,717 in 1871-72. There was thus an apparent deficit in the year of Rupees 96,670, but the Board explain that among the charges under the head Plantations is included the sum of Rupees 1,00,000 paid for land in Malabar, and that, excluding this item, the receipts were Rupees 40,620 in excess of the ordinary charges. This sum, however, is not the real profit of the year's working, for, when the decrease of stock is taken into account, it is reduced to Rupees 3,330, as shown in the following table:—

Rupees 4,18,883.

Years.	Receipts.	Charges.			Net.	Increase or Decrease of Stock during the Year.	True Results of the Year.	Remarks.
		Conservancy and Working.	Establishment.	Total.				
	Rs	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
1872-73... ...	4,18,767	* 2,03,735	1,74,412	3,78,147	40,620	— 37,290	3,330	*Deducting Rs. 1,00,000 spent in purchasing 2 tracts of land for plantations in Malabar.
1871-72... ...	4,18,883	1,94,814	1,50,903	3,45,717	73,166	4,960	78,126	
Increase or Decrease.	— 116	8,921	23,509	32,430	— 32,546	— 42,250	— 74,796	

2. The returned yield of the forests is not complete, owing to some districts not having sent in any account of the free felling. There is also a want of uniformity in the return, which is confusing, and the Board should prescribe for universal adoption a standard measure for each head in it. The amount of timber, etc., felled departmentally and that removed on the license and voucher system is shown below and compared with the return for 1871-72.